

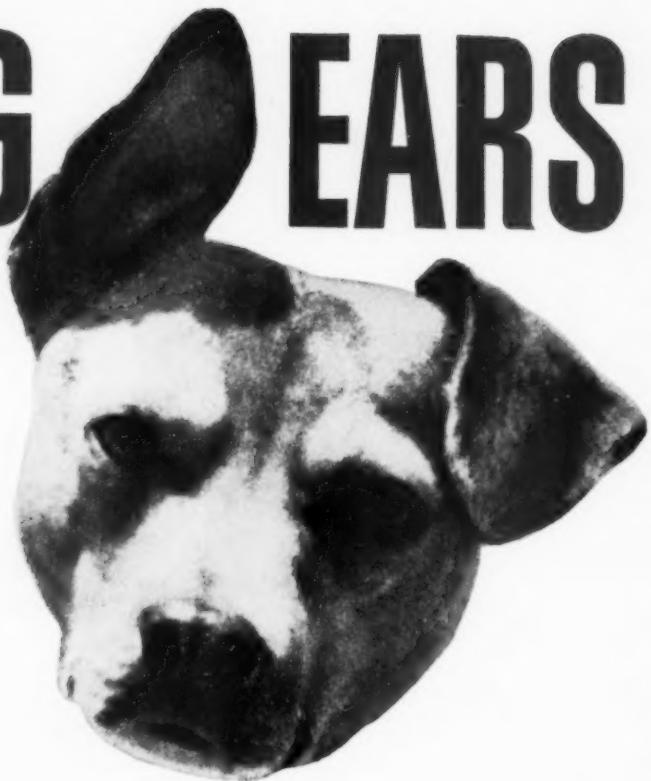
Modern packaging



Nominated for *Packaging Hall of Fame®* Story on Page 108

December 1953

NO DOG EARS



400% Higher Glue Cost Saves Money

Here's one manufacturer's savings: In side seaming flour bags before forming satchel and square bottom gusset bags. Production was stepped up to 250 bags a minute. Compression time was shortened. Shelf leakers reduced. Down-time for glue adjustment or change stopped. And waste—caused by tail outs, side outs, or dog ears—was ended.

Here's the adhesive: A new fast breaking, instant bonding Resyn adhesive that holds tight at score points and prevents leakers. Bonds both nonporous and porous bag stock; tubing, cartons, and boxes. Applies a thin, nonpenetrating film. Is colorless, odorless. And more moisture resistant than vegetable glues.

National Starch Products Inc. (Adhesives Division), 270 Madison Ave., New York 16; 3641 So. Washtenaw Ave., Chicago 32; 735 Battery St., San Francisco 11; and other principal cities.

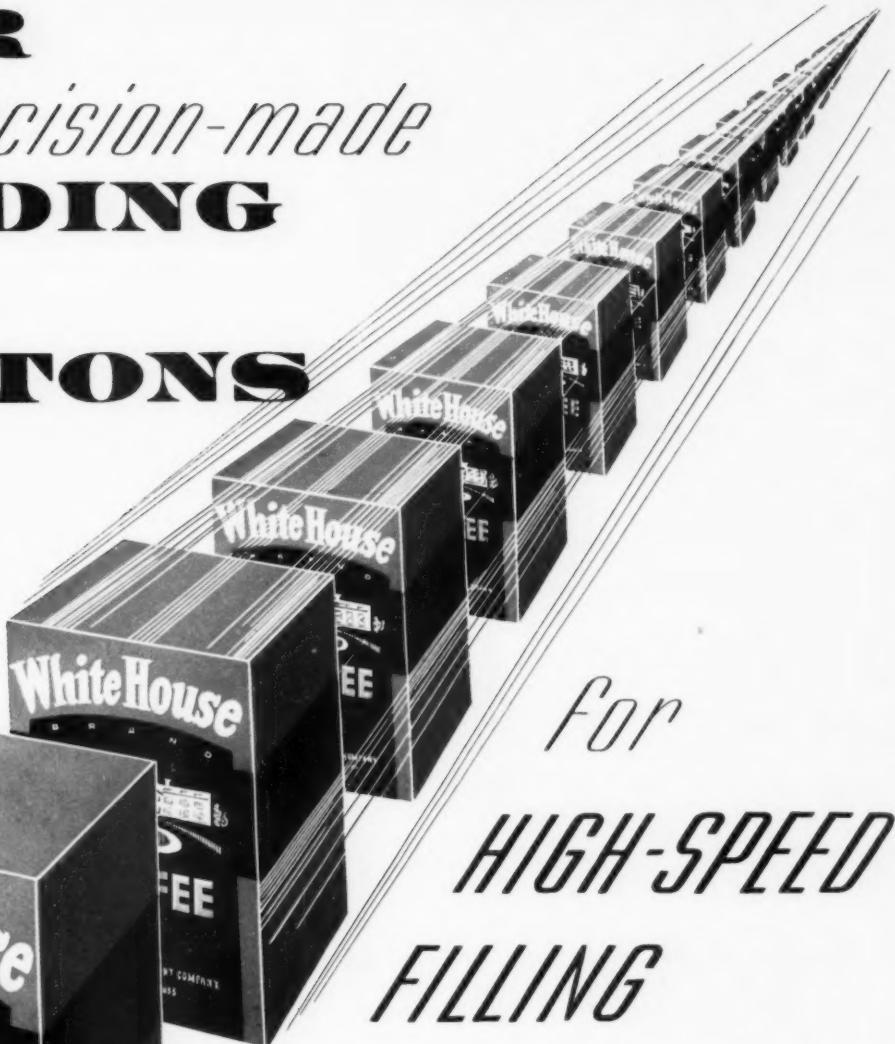


RESYNS® • ADHESIVES • STARCHES

GAIR

Precision-made
FOLDING

CARTONS



for
**HIGH-SPEED
FILLING**

Hour after hour, these White House coffee cartons flow through high-speed filling machines without tearing or jamming. Production stays in high gear with no disruption of vital schedules.

Why does a packer get performance like this from Gair-made cartons? Because Gair packaging engineers base their work on a constant study of all types of automatic packaging machinery. Every new carton is designed to fit the peculiar characteristics of the machine that will fill it.

Our consultants will be happy to show you how precision-made Gair cartons will help step up the speed on your production line. No obligation, of course.

Write today for Gair's Folding Carton booklet.



GAIR

FOLDING CARTONS
SHIPPING CONTAINERS
PAPERBOARD

ROBERT GAIR COMPANY, INC. • 155 EAST 44TH STREET • NEW YORK 17

DECEMBER 1953

Modern packaging

Vol. 27 No. 4 December 1953

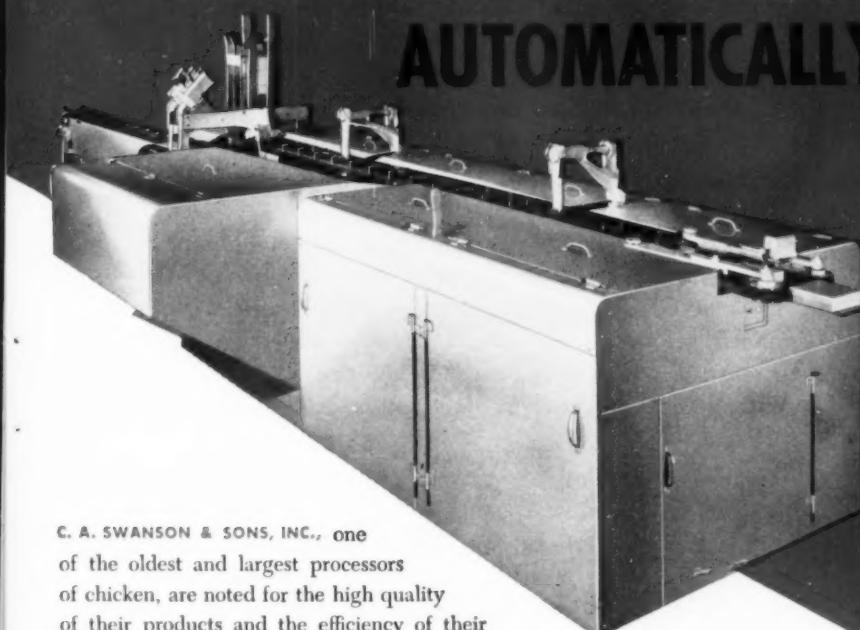
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JONES

AUTOMATICALLY CARTONS



C. A. SWANSON & SONS, INC., one of the oldest and largest processors of chicken, are noted for the high quality of their products and the efficiency of their production methods. When the rapidly increasing popularity of their frozen chicken and beef pies suggested automatic cartoning, they turned to Jones.

The Jones Constant Motion Cartoner handles the fragile, unfrozen pies with all the gentle care given a home-made pie. From infeed to discharge, the pies move smoothly, constantly — without spilling or marring. The finished product even surpasses in appearance the high standard required of their hand loading lines.

Three of these machines are in operation, turning out several hundred thousand pies weekly. The saving in labor, compared to the earlier hand loading lines, will pay for all three machines in considerably less than a year.

In operation, each Jones Cartoner receives the finished pies automatically from the crimping machine. (Should an inspector remove an occasional "cripple" from the bucket conveyor, no carton is fed for that bucket, yet the machine continues to run.) The carton is fed and opened, the pie is gradually inserted by loading pushers which center the pie accurately within the carton. Both ends of the carton are closed, and the finished package is discharged from the machine.

Swanson

PIES

Gently!
Swiftly!



ON THIS TYPE OF PRODUCT JONES CARTONERS LOAD FROM 60 TO 160 CARTONS PER MINUTE

The waxed cartons have an unusual type of end closure, consisting of tongue and locking slits, producing a particularly economical and rigid package. Slight modification of the cartoner closing units permits use of conventional tuck cartons.

This high speed cartoning operation is another testimonial to the smoothness and gentleness with which Jones Cartoners handle hundreds of products—and the cost reduction they make possible. If you are now cartoning by hand, a Jones Cartoner might easily save you several thousand dollars yearly. Let us tell you how it can be done.

R. A. JONES & COMPANY, INC.

Cartoning Machines - Soda Presses

P. O. BOX 2055, CINCINNATI, OHIO

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MODERN PACKAGING is regularly
indexed in *Industrial Arts Index*.

Modern packaging

Through a test tube, darkly

WE'RE MORE THAN A LITTLE SURPRISED at the staid old American Chemical Society, issuing a press release conjuring up visions of (and we quote) "a Buck Rogers world of transparent 'tin cans,' second 'skins' for chickens and paper wrappers for corn on the cob."

Above all, we think the 22 eminent food-packaging experts who participated in a seminar at ACS's recent annual meeting would be mortified to find their views interpreted, in a summary published in the *Journal of Agricultural and Food Chemistry*, as leading to the conclusion that "the packaging industry is . . . one step removed from the cracker and pickle barrel."

Neatly confounding its own argument, the *Journal* observes that self-service stores accounted for 79% of the \$33 billion spent in grocery stores during 1952 and that the number of stores selling meat on a 100% self-service basis has grown from 15 in 1945 to nearly 6,000 today.

"Such radical changes can hardly go by unnoticed," say the chemists. A masterpiece of understatement.

What, may we ask, if not packaging has made possible the merchandising of 80% of our dollar volume of foods at self service? What, other than packaging research and development, accounts for the prodigious growth of packaged, self-service meats? If that's just one step from the cracker barrel, it's a mighty long step.

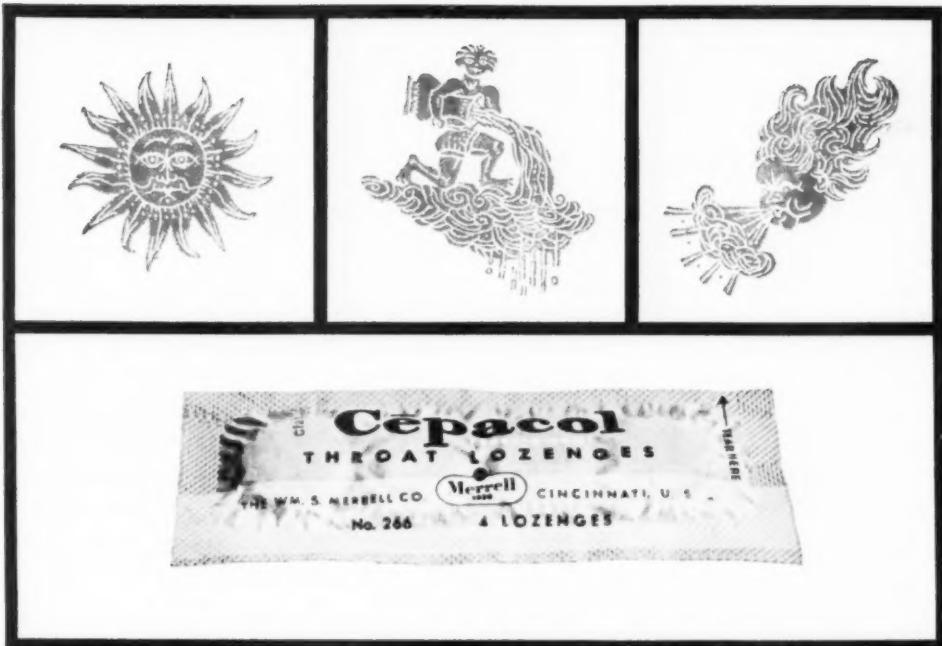
Packaging is young, it's true. We measure its modern growth at little more than 25 years. But what industry, drawing so heavily on chemical processes and syntheses, has come so far so fast? What industry has been quicker to put to work the practical results of chemical research?

Look around you, ACS! Consider the sheer economics of the metal can and the glass bottle, to whose modern efficiency and adaptability so many of your members have contributed. And when you can pull something better out of those test tubes, let us know.



The Editors

MODERN PACKAGING



Keeps light out Keeps moisture out Keeps air out

Everybody talks about the weather . . . but Dobeckmun *does* something about it. For four trying years, The Wm. S. Merrell Company fought the sticky problem of packaging Cepacol, its moisture-sensitive medicated throat lozenge. Nothing seemed to work. Finally they found the answer in Dobeckmun's "flexible tin can", weather-proof Metalam®. Result: A superbly printed package . . . no more melted lozenges . . . lots more sales. Write for our informative free booklet, "Metalam", and you'll do something about the weather, too.

The Dobeckmun Company, Cleveland 1, Ohio • Berkeley 2, California • Bennington, Vermont

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One more step in the right direction—the improved printability of a polyethylene film. Cheslene TF is Cheslene, surface-treated for greater ink adhesion by Chester's new special process. Cheslene TF polyethylene film is available to a selected group of converters—with a uniformity that assures trouble-free press runs, better coverage and wider adaptability. For information how Cheslene TF can be used in your packaging applications and list of converters, write:

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Packaging Products Corp.

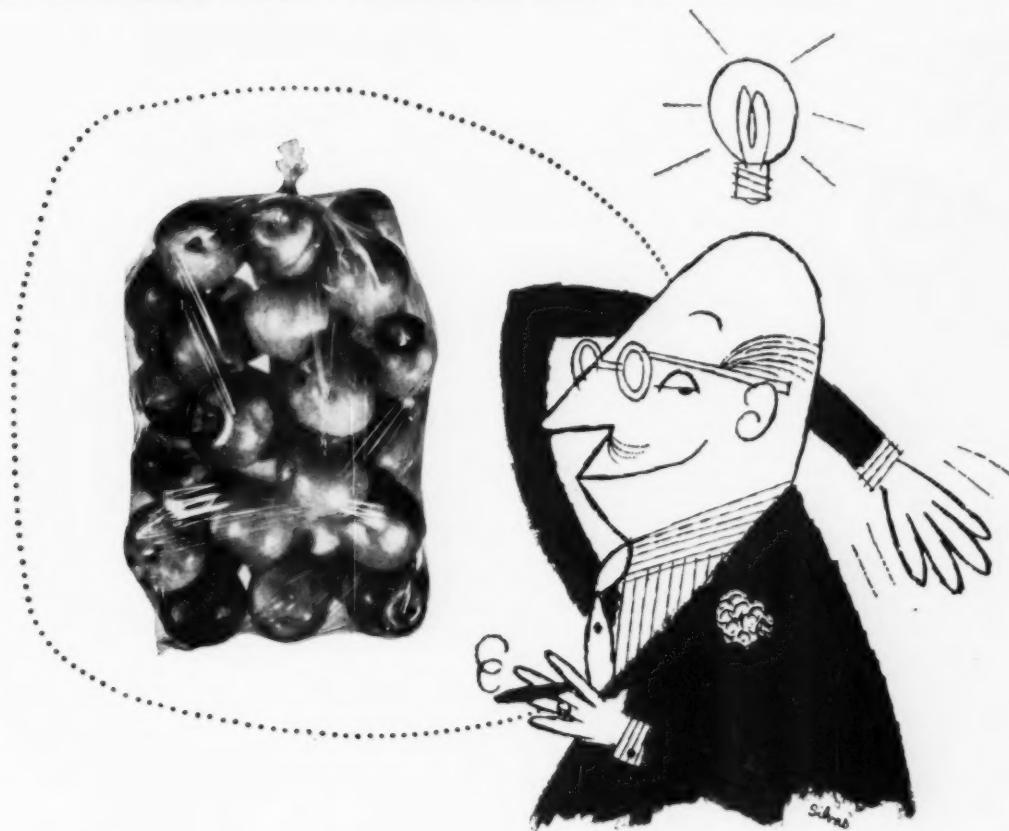
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News about

B. F. Goodrich Chemical *raw materials*



Looking for new markets for Vinyl Film?

Gentlemen, it's in the bag!

IT just takes a little imagination to jump from curtains and baby pants to a new and booming market for vinyl film—bags for grocery products! Already some manufacturers have turned to this new field and offer vinyl film bags for potatoes, citrus fruits, apples—and the list is extending to other products.

Vinyl film bags are inexpensive, they are strong and because they are thoroughly transparent, the customer sees what he is getting. They take printing easily—so they can carry an advertising message. Here's a market that

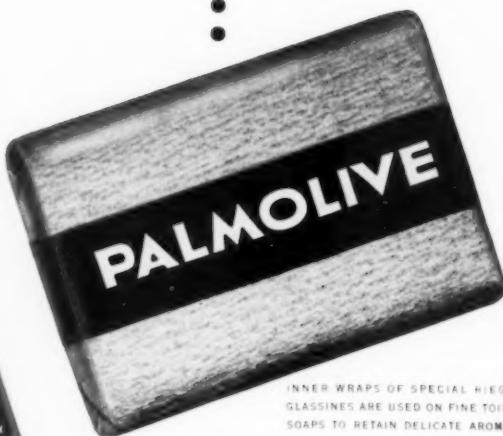
has great possibilities—one with fast turnover—for these bags are throw away items. If you would like further information on the use of vinyl film for bags, please write Dept. GL-12, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio. In Canada: Kitchener, Ontario. Cable address: Goodchemco.



GEON RESINS • GOOD-RITE PLASTICIZERS . . . the ideal team to make products easier, better and more saleable.

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Write us now and tell us what you want paper to do for you. Riegel Paper Corporation, P. O. Box 170, Grand Central Station, New York 17, N. Y.

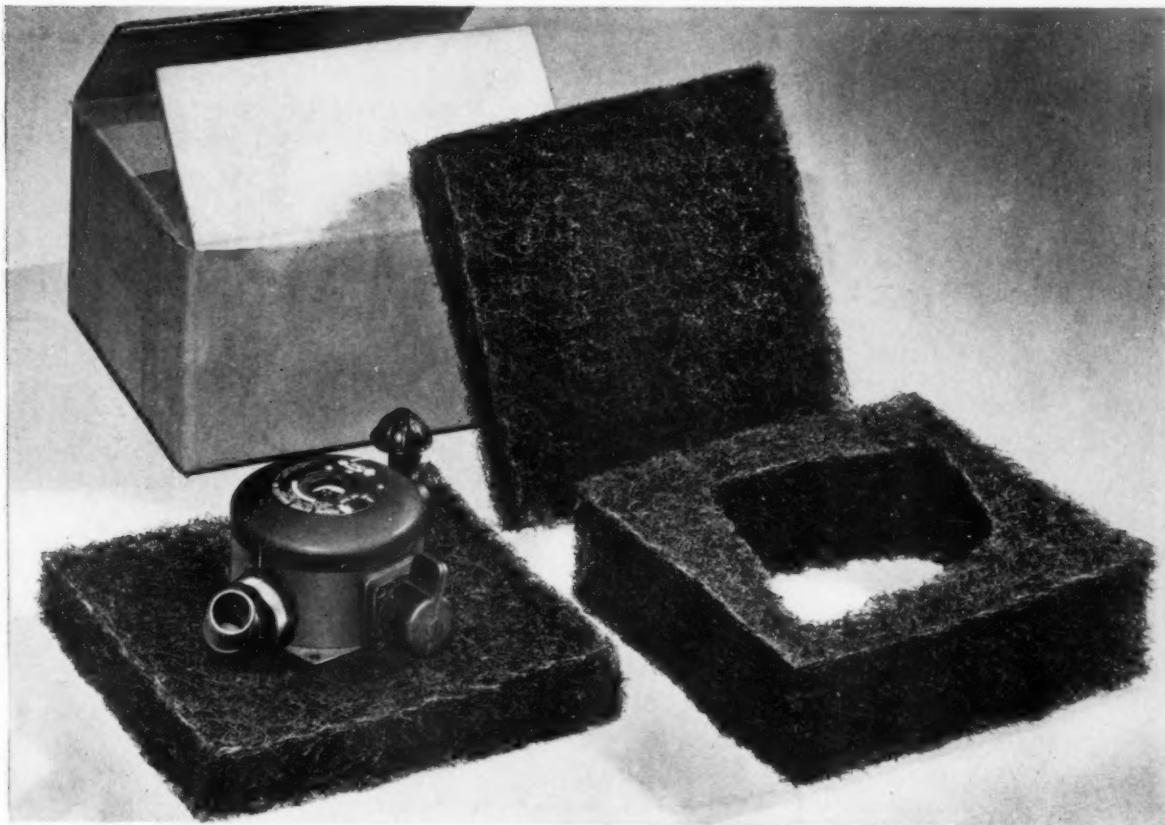
Tailor-made Packaging Papers

Riegel

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Now! Protect your product with pillow'd packaging!



It's Hairflex! The safe, economical way to package your product!

Hairflex will be a magic word in your shipping room because it's so easy to use—saves time, work and money. It's pillow'd packaging that fits your product like a glove, surrounding it with the safety that means so much to your customers, and your profits!

Actually, your product will be floating inside a *cushion* made up of lively curled hairs locked in rubber. This cushion is strong, resilient, and can endure the repeated shocks of rough handling. Hairflex, which conforms to government and military packaging specifications, comes in sheet forms of several densities and thicknesses—we die-cut it to fit any product. If your product has an unusual size or shape, or if you have any packaging problems, don't hesitate to write us—our engineers are ready to help you.

You can see right away how Armour's Hairflex is going to help your business by saving time and labor in your shipping room. No more bills for damaged merchandise either. Above all, you'll know that every single one of your shipments reaches your customers in perfect condition!

ARMOUR

Curled Hair

Armour and Company • North Benton Road • Alliance, Ohio

DECEMBER 1953



IT'S EASY TO USE!

Notice how this demand oxygen regulator is packaged, using three pads of strong Hairflex. The center pad was die-cut in our factory to fit snugly around the product. That's how *your* product can be kept safe—by actually *floating* it in a protective cushion of Hairflex. All you do is assemble—and ship! For prices and specifications, a free sample of Hairflex, and our helpful packaging booklet, mail the coupon today!

Armour and Company • North Benton Road • Alliance, Ohio

Please send me: Booklet—"Pillowed Packaging"
 A Free Sample of Hairflex Prices and Specifications

Name _____ Title _____

Firm _____

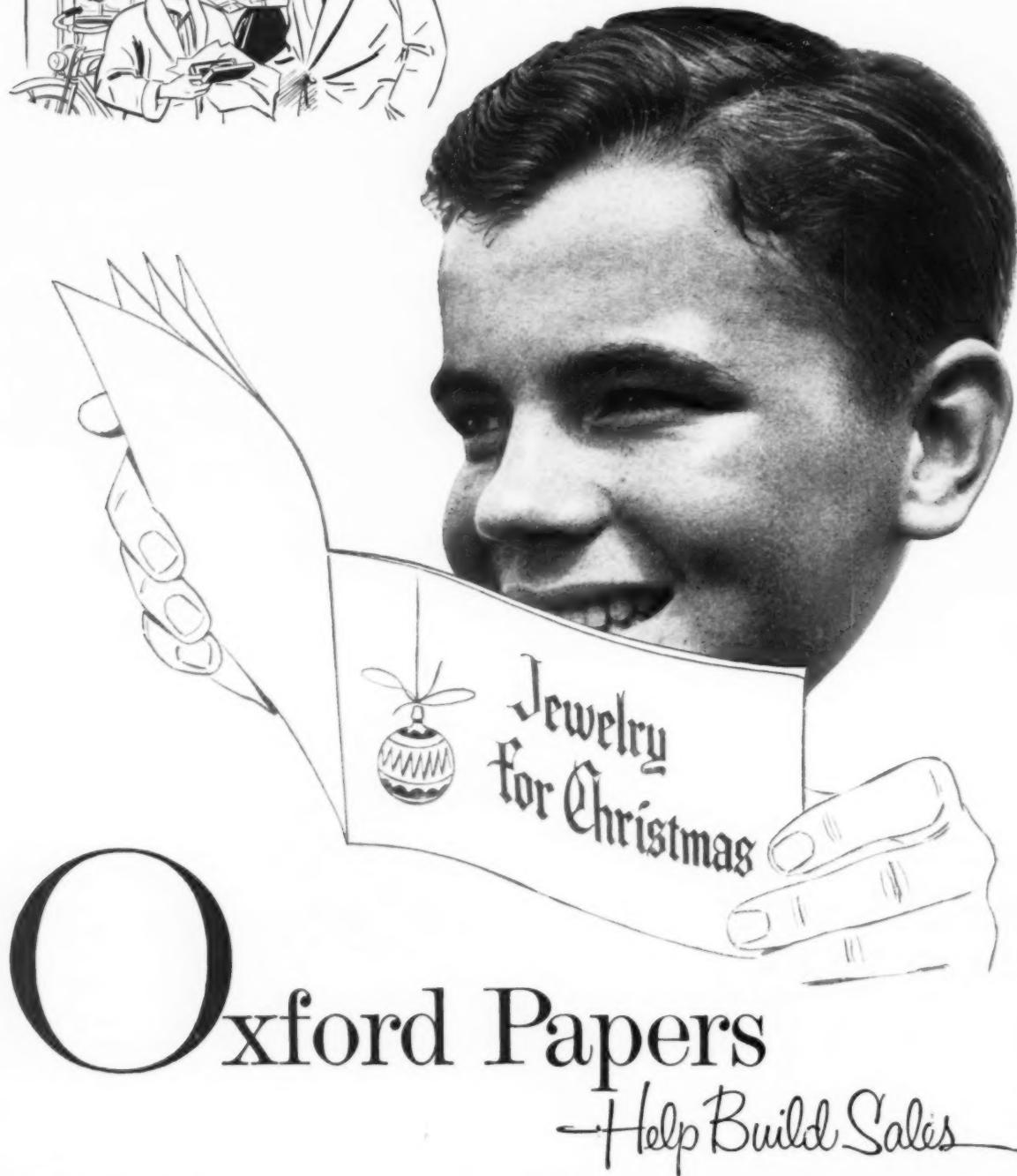
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Memorable gifts from remembered pages



Fulfilling the desire for gracious giving, the Jewelry Industry punctuates its colorful promotions with attractive, compelling printed material. And, for this industry in particular, the special ability of Oxford Papers to recreate the sparkle of precious stone and metal, to reflect quality and integrity, makes these fine papers fit foundation for pages that sell.



Oxford Papers
—Help Build Sales

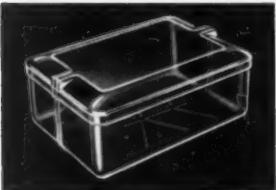
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WRAPPING UP *Christmas Spirits*

... AND CHRISTMAS SALES IN TRI-STATE RIGID PLASTIC BOXES

Crosse & Blackwell's Egg Nog flask fits perfectly into Tri-State's C-49 (4½ x 6¾ x 2¾"). The label shines brightly through . . . always new, always clear, always dust-free.



THE CROSSE & BLACKWELL COMPANY sees a merry selling season for its famous Egg Nog . . . in Tri-State's dazzling gift box. The Old Fashioned Egg Nog flask will shine through the crystal-clear rigid plastic . . . flashing a "wonderful gift idea" message to millions of list-dizzy shoppers. The star bright package will stimulate traffic-stopping store and window displays that will mean *extra business, unexpected business, bonus business!*

This is the sort of promotional package Tri-State can work out for your product. As molders of the world's largest assortment of rigid plastic boxes, we can deliver from our large variety of stock sizes and shapes or mold to your specifications.



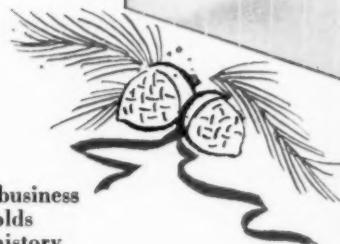
The best Rigid Plastic Boxes are Injection Molded by
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DECEMBER 1953

11

Holiday SPARKLE Now Sparking Sales!



Just for Christmas, let's digress from the serious business of protective packaging...in which the new Reynolds Wrap Aluminum Packaging Seal is now making history.

This Palmolive box-top wrap is for beauty only...for beauty where it counts, on the counter...Christmas gold!

Note the rich lustre of this gold, styled with white lines and shadowed shield. It tells you that Reynolds is supreme in color printing on foil...even as Reynolds is farthest advanced in protective combinations of foil.

Watch how this package shines out in the tinsel world of Christmas selling...how it solves, in a flash, the perennial puzzle of gifts for men.

Yours may be a product, such as this, where eye-appeal is paramount...where the supreme eye-appeal of Reynolds-printed foil can clearly increase sales.

Or your product may need the quality protection of Reynolds Wrap Aluminum Packaging...may benefit by the powerful consumer impact of the Reynolds Wrap Aluminum Packaging Seal.

Whichever it is, consult the nearest Reynolds Sales Office. Or write to **Reynolds Metals Company**, General Sales Office, Louisville 1, Kentucky.



REYNOLDS WRAP ALUMINUM PACKAGING, identified by this seal, means the utmost in product protection. Appearing now on famous-brand products...coming, soon, on many more. Watch for the big consumer promotion on this new buying guide to protected quality.

QUALITY
PROTECTED WITH
REYNOLDS WRAP
ALUMINUM
PACKAGING

Pioneers in Aluminum Foil Packaging

REYNOLDS ALUMINUM

SEE "MISTER PEEPERS," starring Wally Cox, Sundays, NBC-TV Network.





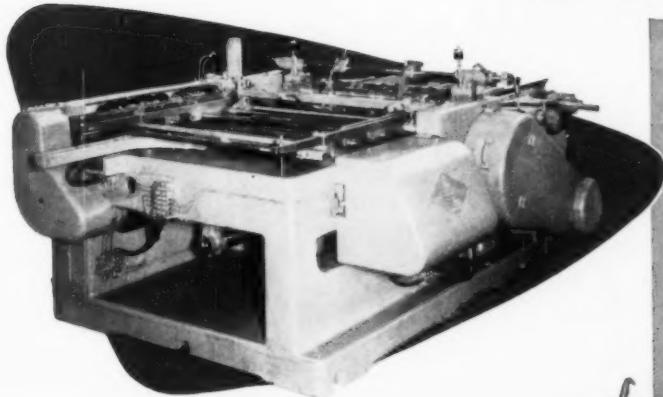
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for
men



rugged, fast, dependable...

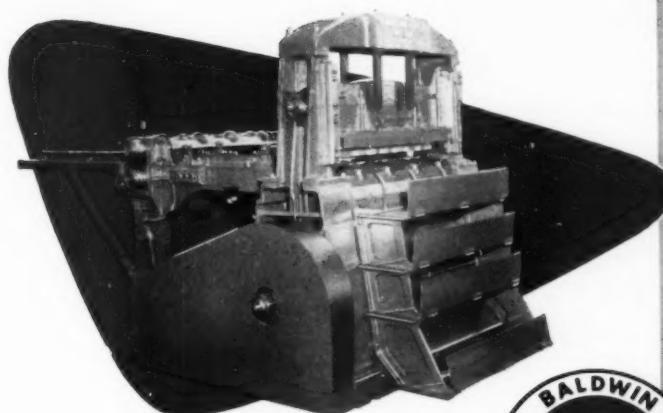
HAMILTON

can making machines



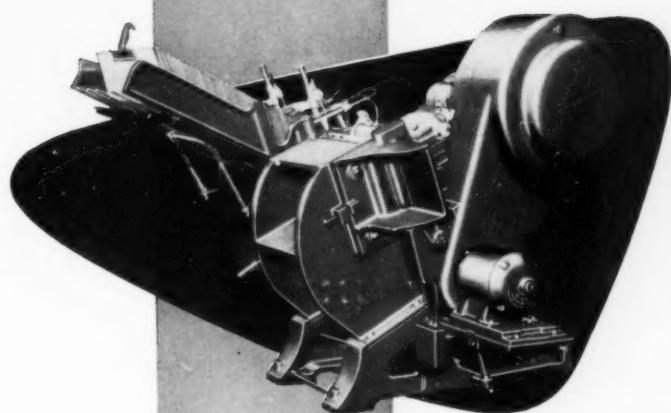
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slits sheets up to 36" at
high speeds . . . as fast
as 70 sheets a minute
. . . newly designed for
more efficient, economical
operation.



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low maintenance . . .
strong, welded construc-
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Speeds output, handling
sheets 25" to 36" square
up to 125 strokes per
minute. Cuts costs, saving
up to 7% in tinplate.



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Learn more about how modern machines from
the complete Hamilton line can give you
faster production at lower unit costs. Write . . .

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Another **TRANSWRAP** *pioneering step in packaging . . .*

Automatic Polyethylene Packaging

with the *new*
TRANSWRAP MODEL "C"

ECONOMY AND SPEED PROVED IN OPERATING INSTALLATIONS
WITH STRAIGHT POLYETHYLENE!

Transwrap is FIRST to offer completely automatic packaging using straight polyethylene material—at high production rates. Tough, transparent, moistureproof poly can now be used for your product without any sacrifice to slow and costly packing setups. Transwrap has developed a new machine for handling and sealing this material in a one step packaging operation. Operating installations are proving Transwrap's superiority on a wide variety of products, including candy in 1 lb. and 2 lb. bags, special potting earths in 3 lb. bags and produce in a range of weights up to 5 lbs. Write to Transwrap at the address below for complete information on this new and revolutionary advance in packaging.



TRANSPARENT WRAP MACHINE CORPORATION
ROUTE 17 HASBROUCK HEIGHTS NEW JERSEY

"Originators of Completely Automatic Packaging"
Agents in Principal Centers of U.S., Canada, Mexico and South America



NOW Plastic Bottles ARE PART OF CONTINENTAL'S SERVICE

With the addition to its family of the Elmer E. Mills Corporation, the Continental Can Company once more expands its services to industry and the nation. Our Tailor-Made Package Service now includes the famous Mills-Plastic containers. These smash-proof, zephyr-weight bottles are available in a wide variety of styles—oblong or cylinder, regular or "squeeze," standard or custom-designed. Mills injection molding and extrusion of plastics are other services that now bear the Continental name. Now more than ever, the solution to your packaging problem—whatever it is—will be found at Continental.

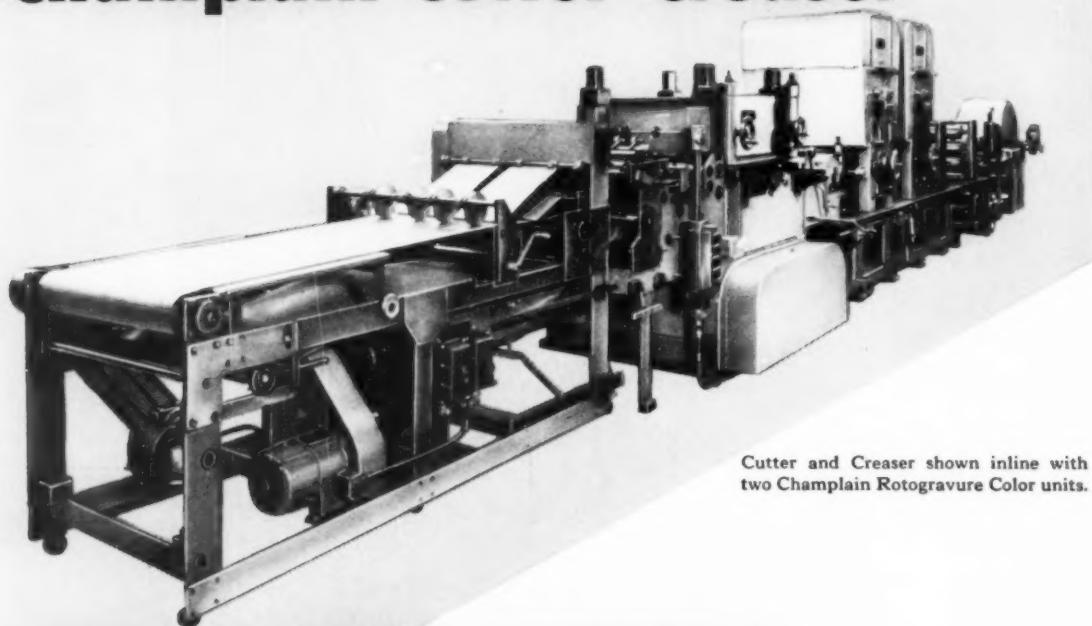
MFD. under patents 2,515,091—2,579,390—
2,579,399. Other pats. pend.

CONTINENTAL CAN COMPANY
SHELLMAR-BETNER
 Flexible Packaging Division

2930 NORTH ASHLAND AVENUE • CHICAGO 13, ILLINOIS



From this **roll-fed** **Champlain Cutter-Creaser**



Cutter and Creaser shown inline with two Champlain Rotogravure Color units.

PLATEN PRESS QUALITY CARTONS *at better than cylinder press speeds*

At last — a Cutter-Creaser that puts the manufacture of high quality but low-cost cartons well within the reach of *all* carton makers. In *one* pass, it cuts, creases, and automatically strips cartons from a continuous web — and brings to the carton manufacturer all these **PLUS** advantages:

- **INCREASED PRODUCTION RATE** . . . 7,500 to 10,500 impressions per hour.
- **MAXIMUM QUALITY** . . . the high quality of platen press cutting and creasing — at better than cylinder press speeds.
- **THOROUGH AUTOMATIC STRIPPING** . . . all intricate internal and interlocked scrap is stripped and carried away *automatically*.
- **LOW DIE COST** . . . with inexpensive steel rule and block or jig dies.
- **CONSISTENT ACCURACY** . . . patented intermittent feed insures uniform accuracy, even at highest speeds.
- **MINIMUM DOWN TIME** . . . changing of dies and make-ready is only a matter of minutes.

By itself, this new Cutter-Creaser has no equal. But when used *inline* — with rotary printing equipment — you gain not only the advantages of the Cutter-Creaser but *all* these *additional* advantages:



- **ABSOLUTE MINIMUM HANDLING OF STOCK** . . . "once through the press" principle means no carting and storage between Multi-color Printing, Lacquering, Die-Cutting and Stripping.
- **IMMEDIATE INSPECTION OF FINISHED CARTONS** . . . from roll stock to finished cartons takes only a few seconds.
- **ACCURATE REGISTER** . . . quick, one-pass operation of all inline equipment allows no time for change in character of stock.
- **MINIMUM SET-UP TIME** . . . no die impression needed for printing register—dies and plates are pre-matched.

Champlain



Champlain manufactures a complete line of rotogravure, flexography, rotary letterpress and allied equipment for packaging and specialty printing.

Write today for catalog of Champlain press equipment and full information on the Champlain Cutter-Creaser. Champlain Company, Inc., 88 Llewellyn Avenue, Bloomfield, N. J. Chicago Office: 520 N. Michigan Avenue, Chicago 11, Ill.



Chronic Labeling Ailments CURED INSTANTLY

with **Steigerwald**
Heat Seal Labels

NO GLUE - NO WATER - NO CLEAN-UP

NO BLISTERED LABELS - NO WRINKLED LABELS

NO MESS - NO LOOSE EDGES - NO SMEARS



Label Dri Challenger
applying
STEIGERWALD
Heat Seal Labels

On flat, round, or tapered containers including

**BOTTLES - JARS - BOXES - AMPULES
JUGS - CANS - BOXES - HARDWARE
DRY GOODS - SPOOLS - DISHES, ETC.**

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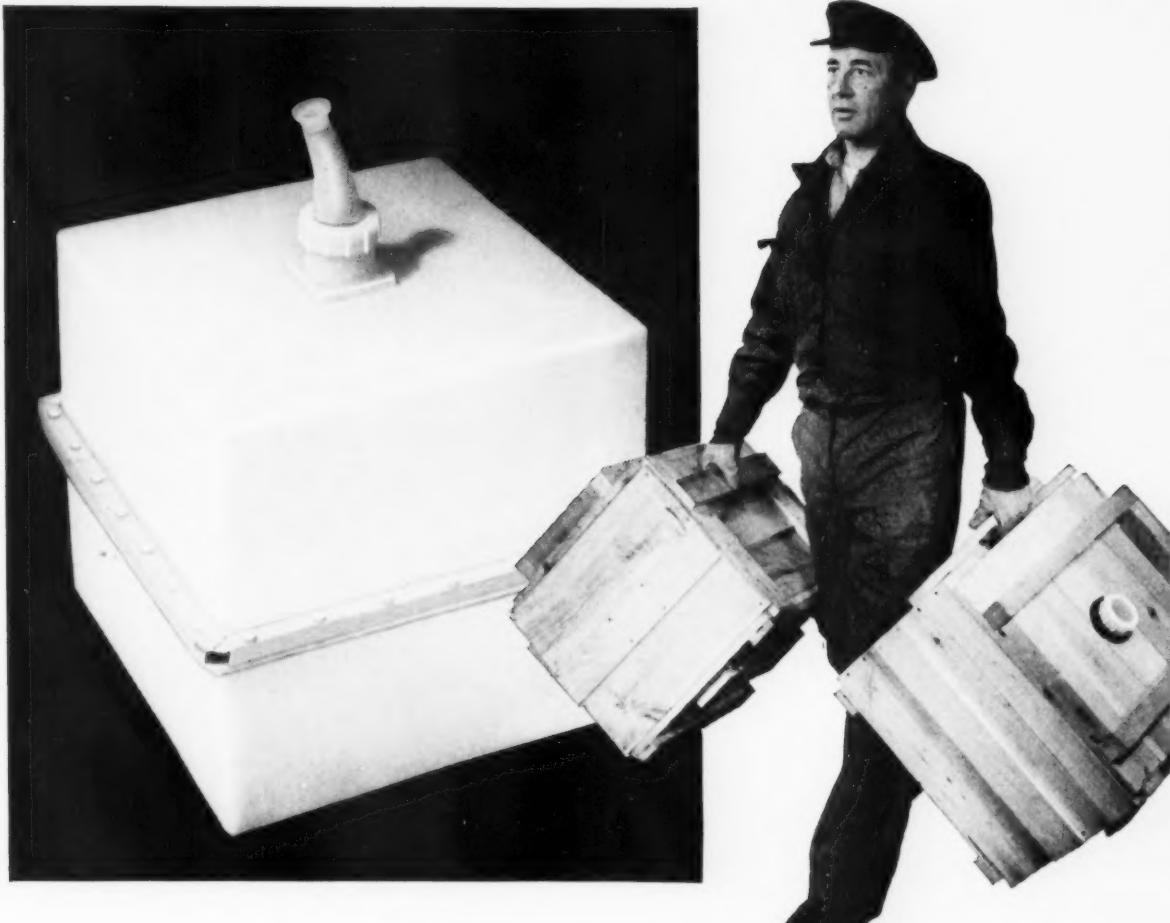


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press them on. Stick
to all surfaces—Hold
securely where oth-
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Remove easily—No
water—No Glue—No
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Labelsmiths

labels all kinds
all types
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Safe, easy-to-handle carboy of Du Pont ALATHON*

holds more...weighs less...cuts shipping costs

It's another packaging improvement made possible by the outstanding properties of "Alathon"

This new carboy offers greater utility and economy for the shipment and storage of corrosive chemicals. The inner container, molded of Du Pont "Alathon" polyethylene resin, has less than half the weight of conventional carboys. This means easier handling, lower shipping costs. The moldability of "Alathon" permits the square shape, which allows more capacity. The square shape also allows stacking for quick palletizing, and the fullest use of shipping and storage space.

"Alathon" has exceptional chemical resistance. It is tough and resilient...makes the carboy virtually unbreakable. "Alathon" is chem-

ically pure (contains no plasticizer). And it has a very low rate of water-vapor transmission.

This carboy consists of two half sections molded of "Alathon" and joined together by heat-sealing the flanged edges. A steel band is then bolted around the sides to form a permanent mechanical seam.

The screw cap, seal and pouring spout are also molded of "Alathon." The spout is reversed inward during shipment, is pulled up and reversed outward for easy pouring.

Du Pont "Alathon" has many applications in the packaging industry—as molded containers and closures and as a coating for paper. Perhaps it can help you in your future packaging needs. For full information, write: E. I. du Pont

de Nemours & Co. (Inc.), Polychemicals Department, Room 2412 Du Pont Bldg., Wilmington 98, Del.

"Karbox"® Carboy molded by A. L. Hyde Co., Grenloch, N. J., for Tennessee Products & Chemical Corporation, Nashville, Tenn.

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...THROUGH CHEMISTRY

Polychemicals
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Why seal by hand when a \$45 investment can

CUT PACKAGE SEALING COSTS 50%!



Here's How:

In the time it takes to snap your fingers, the "SCOTCH" Brand Box Sealer can apply a $1\frac{1}{2}$ " protective seal of "SCOTCH" Brand Cellophane Tape across the open edge of your box. In one easy operation your boxed or bagged merchandise is safely sealed, attractively packaged for more sales appeal. Telescope, full-flap, tuck-in, and other type boxes—it seals 'em all.

And the labor savings made possible by the semi-automatic "SCOTCH" Brand Box Sealer can actually *cut your packaging costs in half!*

Make us prove it!

Ask for a FREE DEMONSTRATION of the "SCOTCH" Brand Box Sealer (no obligation, of course.) See for yourself how it can save labor and material costs, improve your package appeal, and speed up your packaging time. Your local distributor who handles "SCOTCH" Brand Tapes will be happy to give you a free demonstration. Or, if you prefer, just clip the attached coupon, check what you want, tape it to your letterhead, and send to: Minnesota Mining and Manufacturing Company, St. Paul 6, Minnesota. Why not call or write for that FREE DEMONSTRATION today—right now. You'll be glad you did!

Minnesota Mining & Mfg. Co., Dept. MP-123, St. Paul 6, Minn.

Yes!

- I'd like more information on the "SCOTCH" Brand Box Sealer.
- I'd like a FREE DEMONSTRATION of the "SCOTCH" Brand Box Sealer.

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The term "SCOTCH" and the plaid design are registered trademarks for more than 300 pressure-sensitive adhesive tapes made in U.S.A. by Minnesota Mining & Mfg. Co., St. Paul 6, Minn., also makers of "SCOTCH" Brand Recording Tape, "Underseal" Rubberized Coating, "Scotchlite" Reflective Sheeting, "Safety-Walk" Non-Slip Surfacing, "3M" Abrasives, "3M" Adhesives, General Export: 122 E. 42nd St., New York 17, N. Y. In Canada: London, Ont., Can.



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25 years of concentrated plastic fabrication

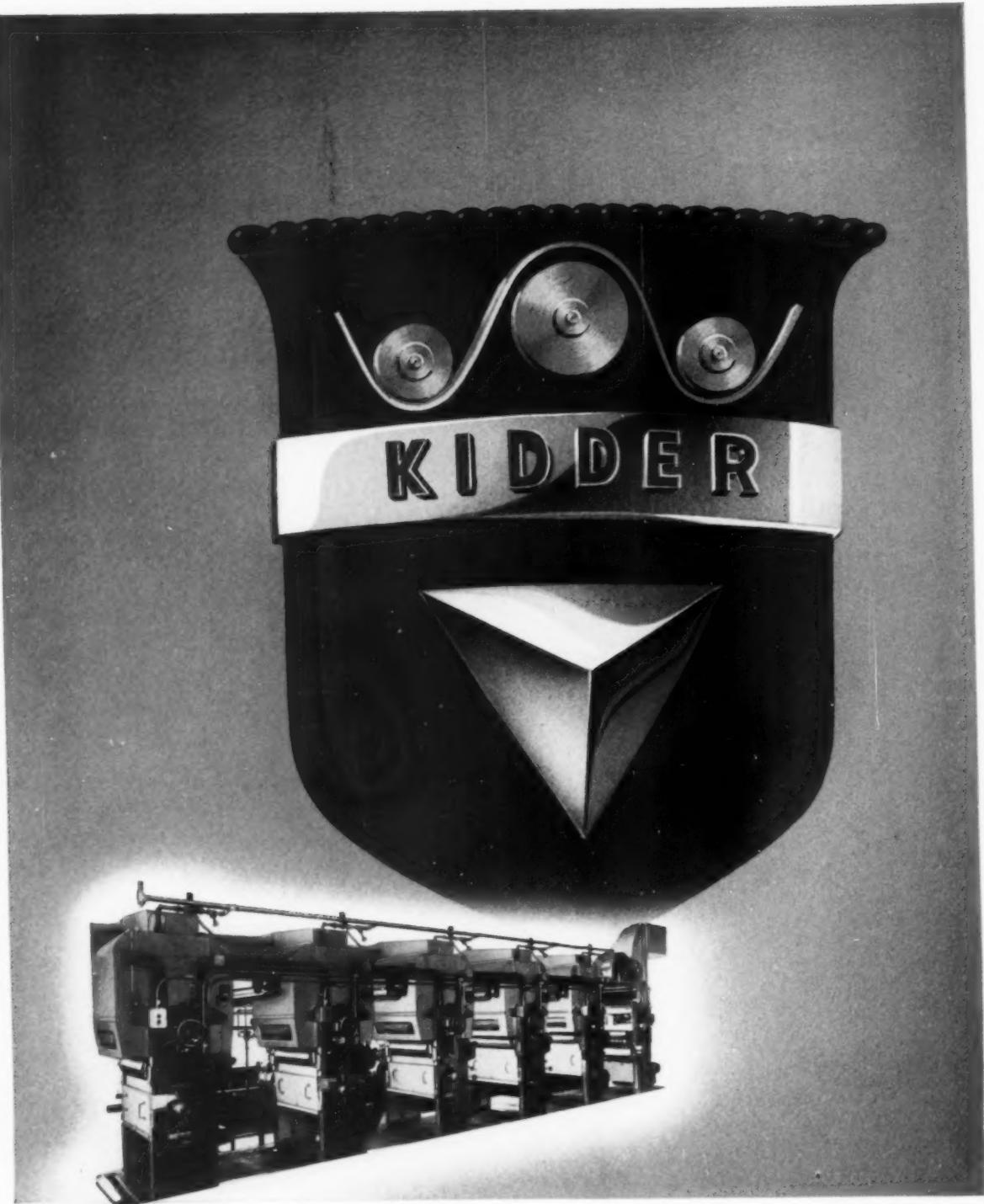
Over 400,000 square feet in three big plants

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Patent applied for process permits unusual new designs that are sensationaly different

Every type and size of plastic container up to 5 gallons

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In every field there are recognized leaders to whom quality of product is the supreme consideration.

To such leaders in the packaging and converting fields, Kidder presses and slitters have long constituted the standard by which other equipment is judged. In Kidder multi-color rotary presses for flexographic (aniline), rotogravure, and letterpress, nothing is spared to achieve the known requirements for perfect printing. In slitting, Kidder's shear-cutting action results in clean, accurate, dustless rolls.

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these facts
on ...

The
newest note
in packaging...

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FILM AND TUBING
EXTRUDED BY
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VARNISH & INSULATOR COMPANY
Argyle Terrace, Irvington 11, New Jersey
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Here's a new name in packaging materials—
IVITHENE... from a company
with almost 15 years' experience in plastic extrusion

IVITHENE is polyethylene extruded in film, lay-flat tubing and heavy sheeting. It offers all the remarkable advantages of top quality polyethylene and has achieved wide acceptance as material for drum liners, multiwall bag liners, textile wraps, produce packaging and fabricated containers.

And it offers an important additional advantage—Irvington's extensive production facilities permit unusually prompt delivery to users—both large and small.

For information on characteristics, suggested applications and technical properties, just mail the coupon below for your copy of our IVITHENE booklet on packaging materials.

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Irvington Varnish & Insulator Co.
28 Argyle Terrace, Irvington 11, N. J.

MP-12/53

Gentlemen:

Please send me your 8-page booklet on IVITHENE packaging materials.

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Company.....

Street.....

City..... Zone..... State.....



**Now's the time to plan a
MERRY CHRISTMAS (1954)
with Miller Boxes**

Our best Yuletide wishes to everybody who buys or specifies boxes . . . especially to those for whom we've helped solve a 1953 holiday packaging problem!

If you're not in this select and growing group, we're sorry; it's too late for us to do you any good this season. But *next* year is a different story . . . and the time to plan for it is right now!

Whatever the nature of your product, we'll welcome the opportunity to design and produce a box . . . either skilfully hand-made containers for delicate *parfumerie* like the Countess Maritza Dusting Powder shown here in its holiday dress or economical, machine-made packages for anything from hardware to pharmaceuticals.

The longer you allow us to plan the job, the better the package we can build for you. Twelve months is ideal! Call or write. We'll send a representative to talk over your needs.

designers and manufacturers of set-up paper boxes



Telephone MArket 7-2600

MODERN PACKAGING

Introducing the NEW Thermatron

Thermatron

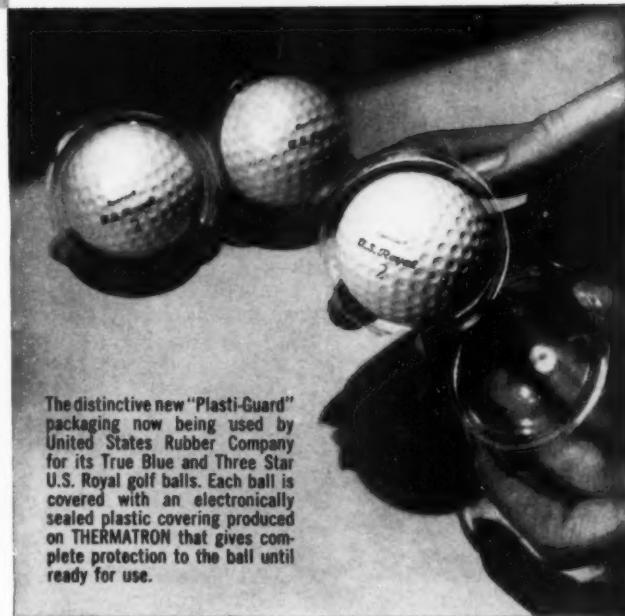
HIGH FREQUENCY SEALING AND HEATING EQUIPMENT

ELECTRONIC CONTOUR PACKAGING OF PLASTICS IN A SINGLE OPERATION!

Small items such as golf balls, razor blades, cosmetics, drug items, etc. can now be contour packaged in a single economical operation on the new THERMATRON acetate and vinyl packaging machine which consists of a THERMATRON high frequency sealing generator, sealing press and a turntable.

Acetate, rigid vinyl or a combination of rigid and soft vinyl may be used to create a package that is individual, attractive and practical. Eye appeal plus low cost make contour packaging the THERMATRON way a *must*.

Acetate and Vinyl Packaging Machine

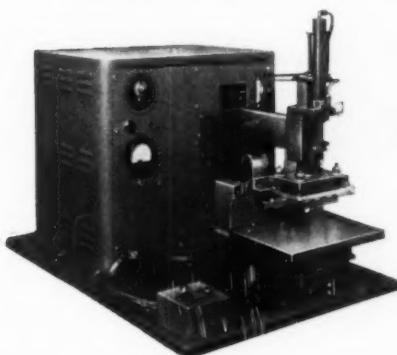


The distinctive new "Plasti-Guard" packaging now being used by United States Rubber Company for its True Blue and Three Star U.S. Royal golf balls. Each ball is covered with an electronically sealed plastic covering produced on THERMATRON that gives complete protection to the ball until ready for use.

T H E R M A T R O N

As many units as the THERMATRON generator can handle electronically are sealed in one operation, and in the case of golf balls that's three at a time. Sealing rate varies between 12 and 20 operations a minute, and ejection of the package may be automatic or manual. The entire machine is shielded and certified to conform to F.C.C. requirements.

For further information and specifications without obligation, write for Bulletin M-4.



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Razor blades and drugs, etc. can be attractively displayed in these THERMATRON sealed plastic containers. Single items may be removed without spoiling the individual packages.

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-the Companion Piece
to Fine Whiskies!



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12

1

2

3



TIME STANDS STILL INSIDE YOUR PACKAGE...

Does every tick of the clock rob *your* product of a fractional share of its original perfection?

Such loss need not occur. Acmeflex — the new wonder packaging material — virtually makes time stand still inside your package. Delivers your product to its final destination in the same condition it left your hands days, weeks, months before.

Acmeflex is a unique barrier . . . provides the ultimate in protection . . . possesses the perfect degree of flexibility . . . can be engineered to your specific requirements. For high-speed automatic packaging, Acmeflex is unsurpassed.

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The barrier packaging
that defies the elements!

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COLGATE-PALMOLIVE-PEET is another nationally known firm that uses Tubes — for protection, convenience and sales appeal.



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Collapsible Metal Tubes • Lacquer Linings • Wax Linings • Westite Closures • Soft Metal Tubing • Household Can Spouts • Applicator Pipes • Compression-Injection Molding

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Fits like a Glove

on Textile Products

Polyethylene can be trusted to solve all the packaging musts for manufacturers of textile products. This brilliantly performing material brings simplicity and economy to complex packaging problems.

Celanese Polyethylene Film—now perfected for packaging—has excellent strength and tear resistance... It ages well, giving long shelf life and long product protection. It has a "feels good" surface that can be easily processed for multi-color printing.

If your product is bulky, free-shaped, or conglomerate, Celanese Polyethylene can provide you a consumer-conscious package with every feature you need. Write for information to Celanese Corporation of America, Film Department 108-L, 290 Ferry Street, Newark 5, New Jersey.

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Celanese*
PACKAGING FILMS

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NIEMAND BROS. PRODUCTS

Offer
**QUALITY and
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If it's eye catching appeal you're looking for, Niemand Bros. quality tubular packages are your answer.

Our line of attractive packaging may be printed and styled with decorative papers, and are made with closures of metal, paper or plastic with shaker or sifter dispensers where needed.

Why not turn your next packaging problem over to us and prepare yourself for some pleasant surprises.

We'll be happy to submit suggestions.



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Whether you want to protect toys or textiles from dust and dirt—keep produce fresh from farm to table—or lock moisture away from sensitive hygroscopics—**VISQUEEN** does the job. **VISQUEEN** is hard to tear, doesn't split, crack, run or shatter. If you puncture it, the damage won't spread. **VISQUEEN** is chemically inert, absolutely pure, tasteless, odorless. So it's ideal for foods. **VISQUEEN** doesn't block. Bags made from the film open easily to speed packaging operations. Furthermore, it can be sealed with heat, tied, sewn, taped or stapled. So it adapts readily to a variety of packaging lines. **VISQUEEN's** unequalled uniformity means more bags to the pound—to save you important money. Above all, **VISQUEEN "C"** is *the* printable polyethylene. It takes ink brilliantly and the ink stays on to carry your brand name right into the home. For better packages, use the coupon.

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in any language . . .

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... is tops for VERSATILITY

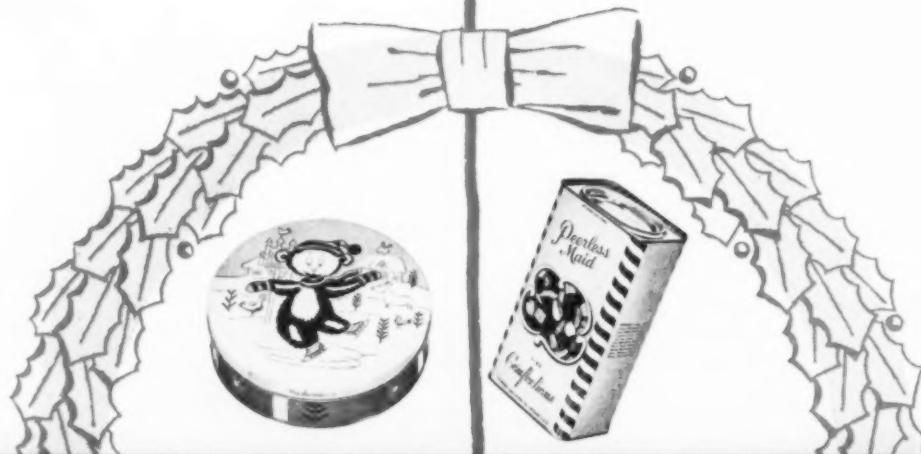
*They both mean Versatile

THE VISKING CORPORATION, BOX H12-1410 Plastics Division, Terre Haute, Indiana

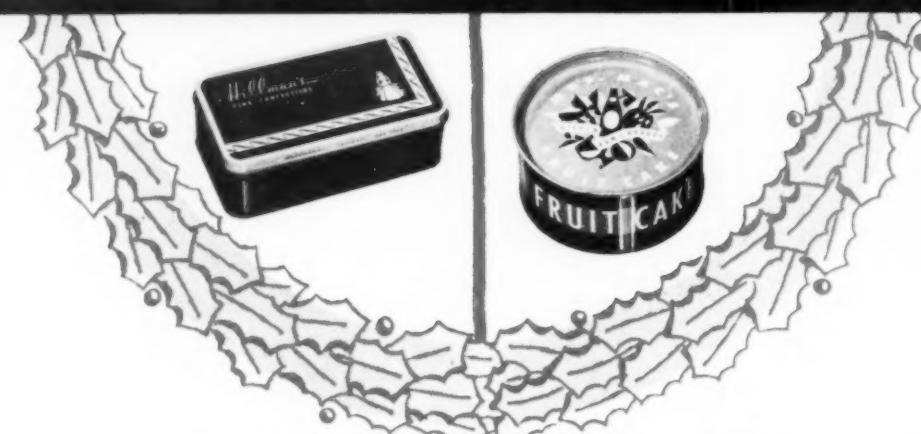
Please send me names of VISQUEEN converters serving my area.

Name _____ Company _____

Address _____ City _____ Zone _____ State _____



For Xmas Treat Your Product to Olive Cans



Your sales will reflect the difference all year 'round if you start packaging your product in Olive Cans right now! These sales-favorites, in square or round styles, are suited to a wide range of merchandise.

Their practical beauty, combining sturdy construction with fine, full-color lithography, is available at costs which are most reasonable.

You will be pleased with Olive Can Company service. Your order—be it large, be it small—rates fast attention . . . and you will have your cans in record time.

Whatever your product is, it will enjoy being treated to Olive Cans. We will be happy to submit suggestions and quotations.

Quality **OLIVE CAN COMPANY** *Service*

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P. S.

"Season's Greetings" to all of our customers and friends.

METAL
CONTAINERS

If products must be
protected from moisture...



make sure the bag is made with
DAREX Resin Emulsion Adhesive

You get extreme water-resistance . . . you get a continuous bond even on creped paper . . . you get quick grab that speeds production . . . and you get them economically with DAREX Resin Emulsion Adhesives! Here's an actual example: *A maker of specialty bags, using wet-strength papers, switched from his usual adhesive to DAREX Resin Emulsion Adhesive. He gained higher production speeds. He improved the qual-*

ity of his bags. And he got these advantages without any increase in his adhesive cost per bag! DAREX Resin Emulsion Adhesives make a flexible seam because there is no crystallization or brittleness. You can use them on any stock, from porous to highly sized. But . . . why not test these advantages yourself, in your plant, on your multi-wall or other specialty bags? Write on your letterhead for a generous sample, today!

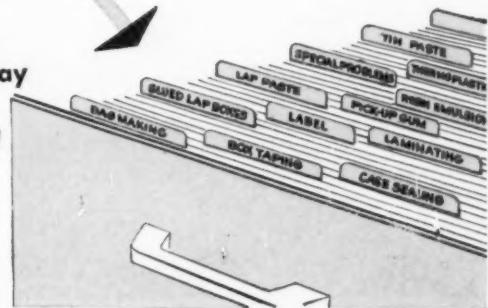


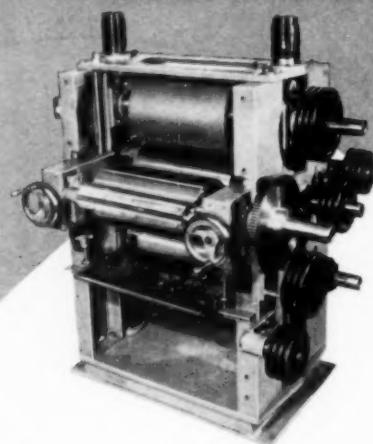
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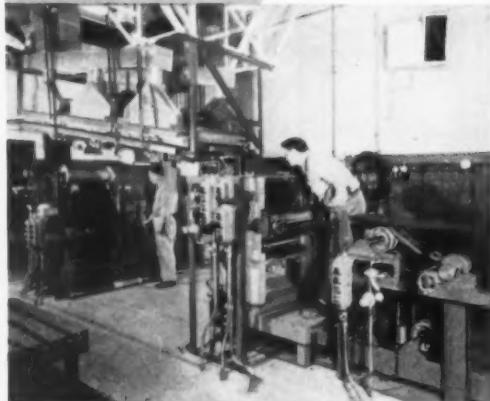
The solution
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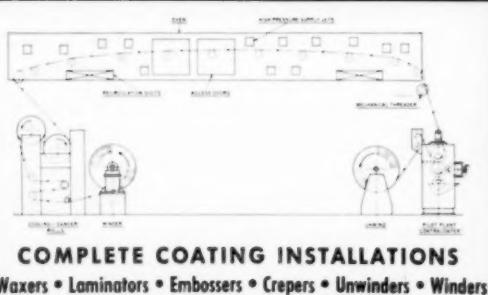


The modern converter needs commercially equivalent products to test markets and get consumer reaction. You can't get commercial equivalents by laboratory experimenting with table-top gadgets. It takes semi-commercial production that can later be matched to full scale production practices. You can produce the desired results on an experimental basis with the Dilts' 12" or 18" pilot plant Contracoater*. Write for Bulletin 12DM.

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...for Halo, BEETLE®



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Good choice for Colgate-Palmolive . . . good choice for you. Let us highlight some of BEETLE's high spots for you.

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*HALO is the registered trade-mark of Colgate-Palmolive Co.

BEETLE Plastic caps are molded for Colgate-Palmolive by Bernardin Bottle Cap Co., Inc., Evansville, Ind.;
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With customer favor



Radiart Corporation packages nine auto radio vibrators in a Vlchek Plastic Box providing convenience to purchasers, added sales for Radiart.

Vlchek Plastic Boxes have won a nine to two score with one of the leading suppliers of vibrators for auto radios, Radiart Corporation, Cleveland. Now nine vibrators are often sold instead of two, according to Radiart Corp.

Radio repair shop buyers see a Vlchek Plastic Box with nine of the most popular type of vibrators inside, and immediately recognize the use of the empty box for their myriad of small parts. Vlchek Plastic Boxes prove the maxim "to show 'em is to sell 'em" for Radiart.

Standard Vlchek Plastic Boxes are made in eight standard sizes with 548 different compartment arrangements. Specials, involving variations in size, shape, color, interior design or hinge design, are also available—often at stock box economy.

One of our experienced designers will answer your inquiry promptly.

PLASTICS DIVISION

THE VLCHEK TOOL COMPANY

3001 East 87th Street • Cleveland 4, Ohio

MODERN PACKAGING



A change in Company name is not a thing lightly done.

We experienced a qualm or two—what would become of our name,
painstakingly built up over a period of five, two years—
now to be changed . . . to keep pace with our growth.

Looking at the facts—just What's In A Name?

We believe that in a Company name we find mostly people:
People in our factories and offices dedicated to build a business . . .
People who have enough faith in us to finance our business . . .
People called customers, who have the confidence to give us business.
These are the important reasons for our growth and prosperity.
Now we have a new Company name, up-to-date and descriptive—and we are enthusiastically looking forward
to a new era of Service—Quality—and Growth.



Four paperboard machines produce over 100,000 tons of high quality paperboard annually.

Four Cottrell 5-color rotary presses plus conventional two-color equipment print approximately a billion cartons a year.

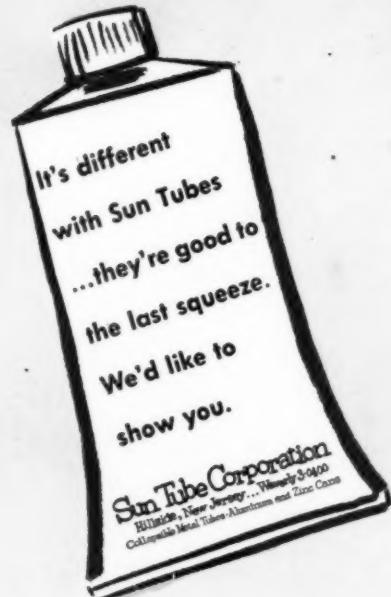


Two plants, one in New Haven, and a subsidiary, The Bartgis Brothers Company, Ilchester, Maryland, are strategically located to provide fast, reliable service.

THE NEW HAVEN BOARD & CARTON COMPANY NEW HAVEN 8, CONNECTICUT

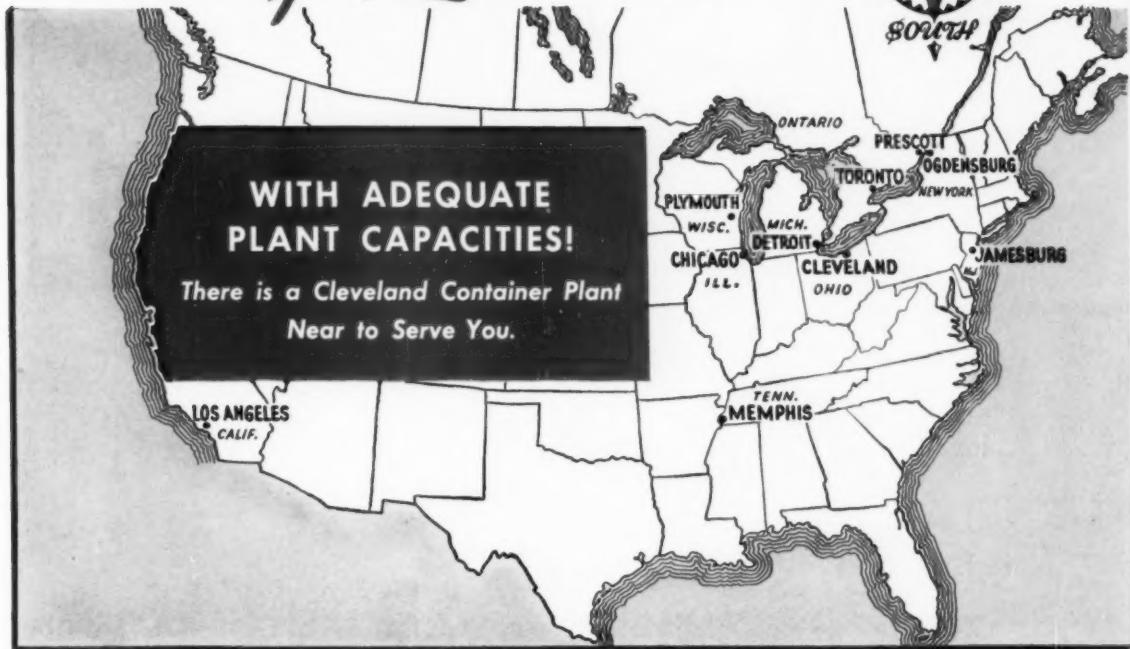
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Strategic Locations



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Our complete line of containers offers the customer a wide choice in packaging. Cleveland Containers can be used for practically all dry products. They are of sturdy construction and can be furnished with special liners, colored spiral wraps or labels.

Our customers know that Cleveland Containers are efficient, economical and attractive. They enhance a good product through better packaging. This can be accomplished at low cost . . . with a container designed to fit your exact needs.

We offer you our long experience in packaging a wide variety of products.

**WHY PAY MORE? . . . for the best,
Call Cleveland!**

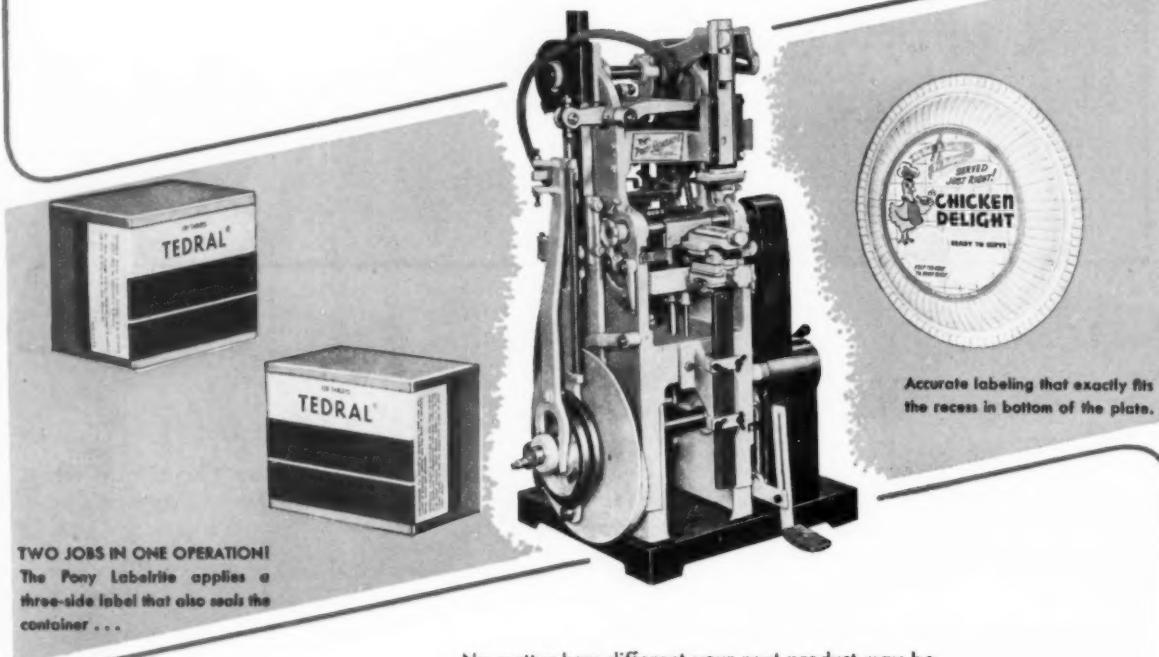
Ask for folder on:

- Plain All-Fibre Cans
- All-Fibre Jacket Cans
- Metal End Slip-Cover Cans
- Metal End Friction Plug Cans
- Metal End Turn Sifter Top Cans
- Metal End Screw Top Cans
- Metal End Telescope Cases
- Unit Pack Cans
- Tubing, All Sizes & Lengths.

The ONE LABELER that handles all containers!

Time and again this versatile labeling machine solves problems that baffle others.

Registers precisely on panels, in recesses, and on curves . . .



TWO JOBS IN ONE OPERATION!
The Pony Labelrite applies a three-side label that also seals the container . . .

No matter how different your next product may be in shape or style of label, the production man, as well as the Sales department knows it can be handled on the equipment you already have . . . if its

Ask
to see the
Movies!

the PONY LABELRITE®

536

NEW JERSEY MACHINE Corporation

AUTOMATIC LABELING • PACKAGING



PAPER BOX MACHINERY • MAKERS OF THE PONY LABELRITE

FACTORY SALES AND SERVICE BRANCHES
in CHICAGO-CINCINNATI-LOS ANGELES

MAIN OFFICE & FACTORY: 1510 WILLOW AVE., HOBOKEN, N. J.

A master package by PACKAGE PRODUCTS

Check the striking beauty of this "Ye Ole' Virginny" bag, designed for self-selling and printed with the clarity and strength of the "Rotochrome" quality control process. Fabricated for easy filling and high strength, this bag is typical of the many varied styles and types produced by Package Products Company.

Package Products Company
Charlotte, North Carolina

JOEL E. HARRELL & SON, INC.

Product:	Pure Pork Sausage
Description:	Duplex gusseted bag, brilliantly printed in blue, red, yellow and white.
Sales Status:	Sold in food stores and supermarkets where "impulse" sell is essential.



PACKAGE
PP
PRODUCTS

John Dale OF ENGLAND

for quality containers

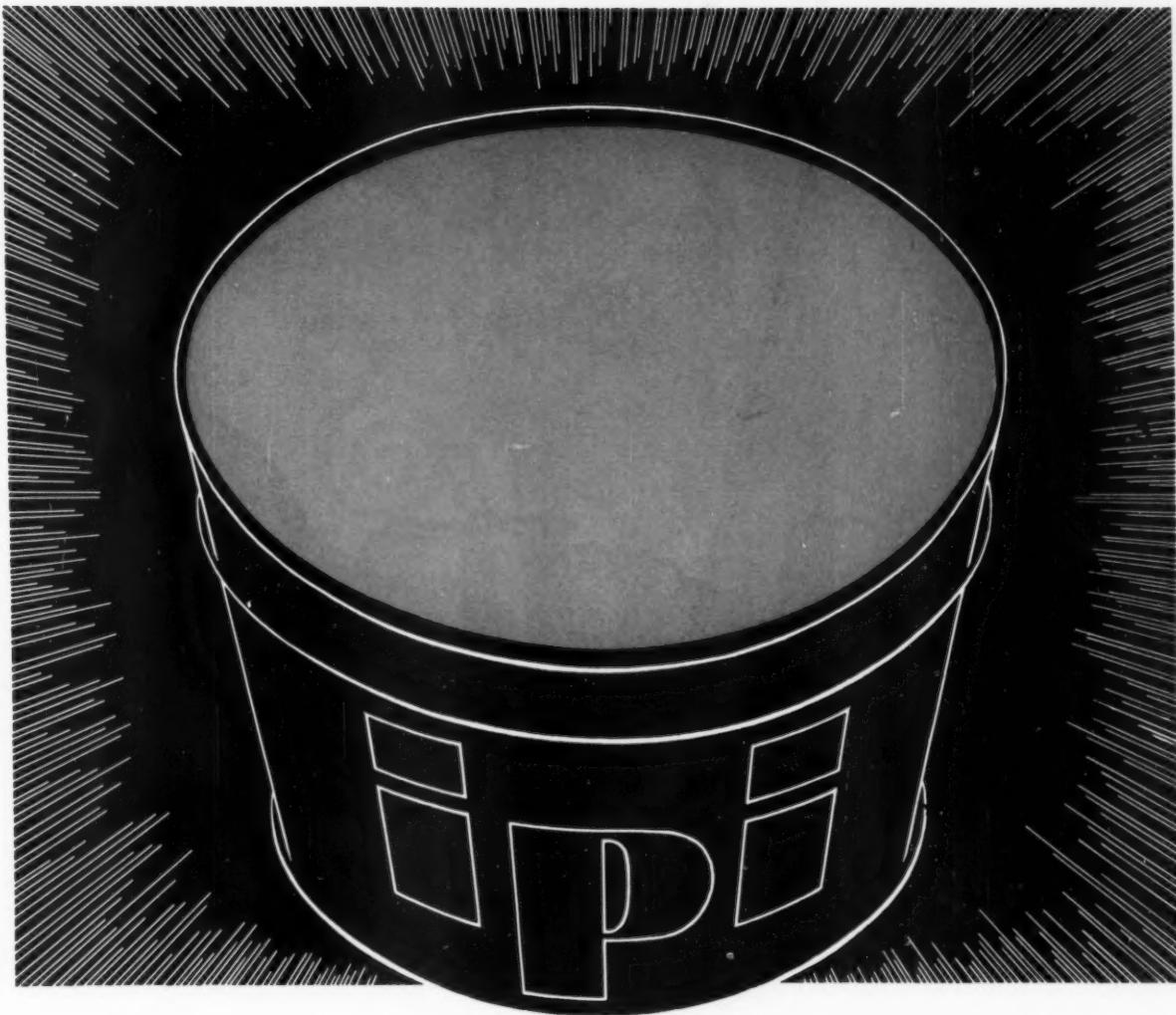
Collapsible tubes, metal
containers, closures to
your exact specifica-
tion—and made with
p-r-e-c-i-s-i-o-n



AGENTS IN INDIA

HOARE MILLER &
COMPANY LIMITED,
5 FAIRLIE PLACE,
P.O. BOX NUMBER 63.
CALCUTTA, I.

JOHN DALE
LIMITED



NOW...IPI DAY-GLO FLUORESCENT INKS

For Letterpress and Flexographic Printing

IPI ink experts have developed magnificent new fluorescent inks in five vibrant colors. They mark the beginning of a new era in Day-Glo letterpress and flexographic printing.

IPI Day-Glo fluorescent inks now make possible long-run, high-speed production never before attainable with fluorescent ink. For these new inks print with unusual depth and brilliance in a single impression. They are the first fluorescent inks ever to be used on the covers of national magazines. Proved by such performance and tested on many actual

production runs in the nation's largest printing plants, IPI Day-Glo inks are now available to you.

You can order them in IPI Vaporin (heat-set), IPI VapoSet (moisture-set), IPI regular oil inks and IPI Anilox flexographic inks. They come in five brilliant colors: Two Reds, Orange, Yellow and Green.

Your IPI salesman has complete information on new IPI fluorescent inks. He will gladly arrange a trial run for you upon sufficient notice. Invite him to call now!

IPI, IC, ANILOX, VAPORIN and VAPOSET are trade marks of Interchemical Corporation.
DAY-GLO is a trade mark of Switzer Bros., Inc.

INTERCHEMICAL CORPORATION

Printing Ink Division • 67 West 44th Street, New York 36, New York



RELY ON IPI FOR LEADERSHIP IN INK RESEARCH

DECEMBER 1953

AGAIN the choice is US



**1943 Sterling Drug Inc. Installs US Model JK
For Filling ZBT Baby Powder Cans in New Jersey Plant**

**1952 Sterling Drug Mfg. Ltd. Installs Model JK
For Same Operation in Ontario, Canada Plant**

Sterling Drug Inc., manufacturers of ZBT baby powder, have used U. S. Automatic powder filling machines in their domestic plants for several years. Now they are using a U. S. Automatic Model JK automatic powder filling machine in their Sterling Drug Mfg. Plant at Windsor, Ontario.

The Model JK is a versatile twin station machine that fills with closest accuracy up to 60 containers per minute on all types of powdered and granular materials. Normally the operation of this automatic

machine is to fill by packing under controlled pressure; for those materials that require settling a vibrating filling platform is furnished.

Machine operators praise the efficient dust collector hoods at the filling stations and the shut-off gates that eliminate drip at the augers. Connected to a vacuum system these keep the surrounding air free of dust and make the filling operation absolutely clean.

Add to these features, ease of change-over to handle several sizes of containers and you have a machine that is the last word in modern-high-speed powder filling. Write **US** for complete details.



the Model JK Fully Automatic
Volume Filler, Weigher or Packer.

U. S. AUTOMATIC BOX MACHINERY CO., INC.

Owning and Operating NATIONAL PACKAGING MACHINERY CO. * CARTONING MACHINERY CORP.

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*Branch Offices: New York * Chicago*



Net and Gross Weighing
Package Forming and Filling
Carton Sealing, Lining,
Wrapping, Box Making



ROWELL BOXES

put your products on a pedestal

Join the proud packagers
who have Rowell create
square and round set-up boxes
that put their products
on a pedestal.

Manufacturers of Fine Paper Boxes



**PRODUCING FINE FOLDING
CARTONS FOR LEADERS IN
INDUSTRY FOR FIFTY YEARS**



**EMPIRE BOX
CORPORATION**

GARFIELD, N. J., 70 Outwater Lane • CHICAGO, ILL., 17 E. Chestnut St.



FINE
FOLDING CARTONS
SINCE 1903

3 GREAT PLANTS TO SERVE YOU



paper?

film?

foil?

fabric?

plastic?

one of these

Clark-Aiken GOEBELS SLITTERS AND REWINDERS

will do your slitting

*faster, better
more economically*

because . . .

Clark-Aiken Goebels offers a slitter designed for the job . . . does not have to adapt the job to the machine.

Clark-Aiken Goebels super-rigid construction and use of roller bearings permits higher speeds with sustained accuracy . . . minimizes maintenance.

Famous Clark-Aiken Goebels scissors-type cutting system insures clean, dust-free cut, easy roll separation, long slitter life.

Clark-Aiken Goebels advanced design cuts down time for loading and removal of rolls.

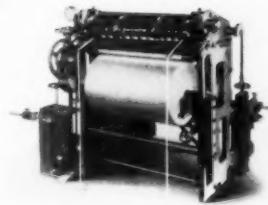
Clark-Aiken Goebels rewinding system permits regulation of roll hardness.

Tell us about your slitting requirements; we'll be pleased to make recommendations and furnish figures showing possible savings.

THE CLARK-AIKEN COMPANY
LEE, MASSACHUSETTS

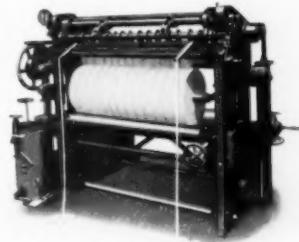
MANUFACTURERS OF **CLARK-AIKEN**
HIGH-SPEED PRECISION CUTTER-LAYBOY
UNITS — The Complete Line

DECEMBER 1953



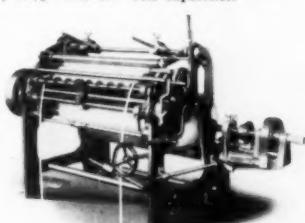
MODEL RAPID D

for Most Grades of Paper, 3 to 140 lbs., Fabrics, Plastics and Metal Foils.
Designed for quick, easy changeover when commencing and finishing runs.
Working speeds up to 1650 feet per minute.
39 $\frac{1}{4}$ ", 49 $\frac{1}{2}$ " and 62 $\frac{1}{4}$ " roll capacities.



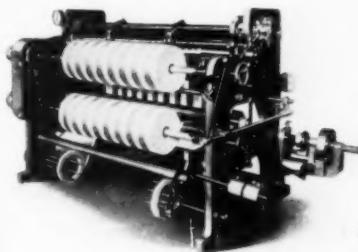
MODEL RAPID U

for Telegraph, Cable Paper, Shop Counter, Automatic Packaging Machine and Gummed Paper Rolls.
Especially suitable for rewinding with small diameter rewinding shafts for small core diameters.
Working speeds up to 1650 feet per minute.
39 $\frac{1}{2}$ ", 49 $\frac{1}{2}$ " and 63" roll capacities.



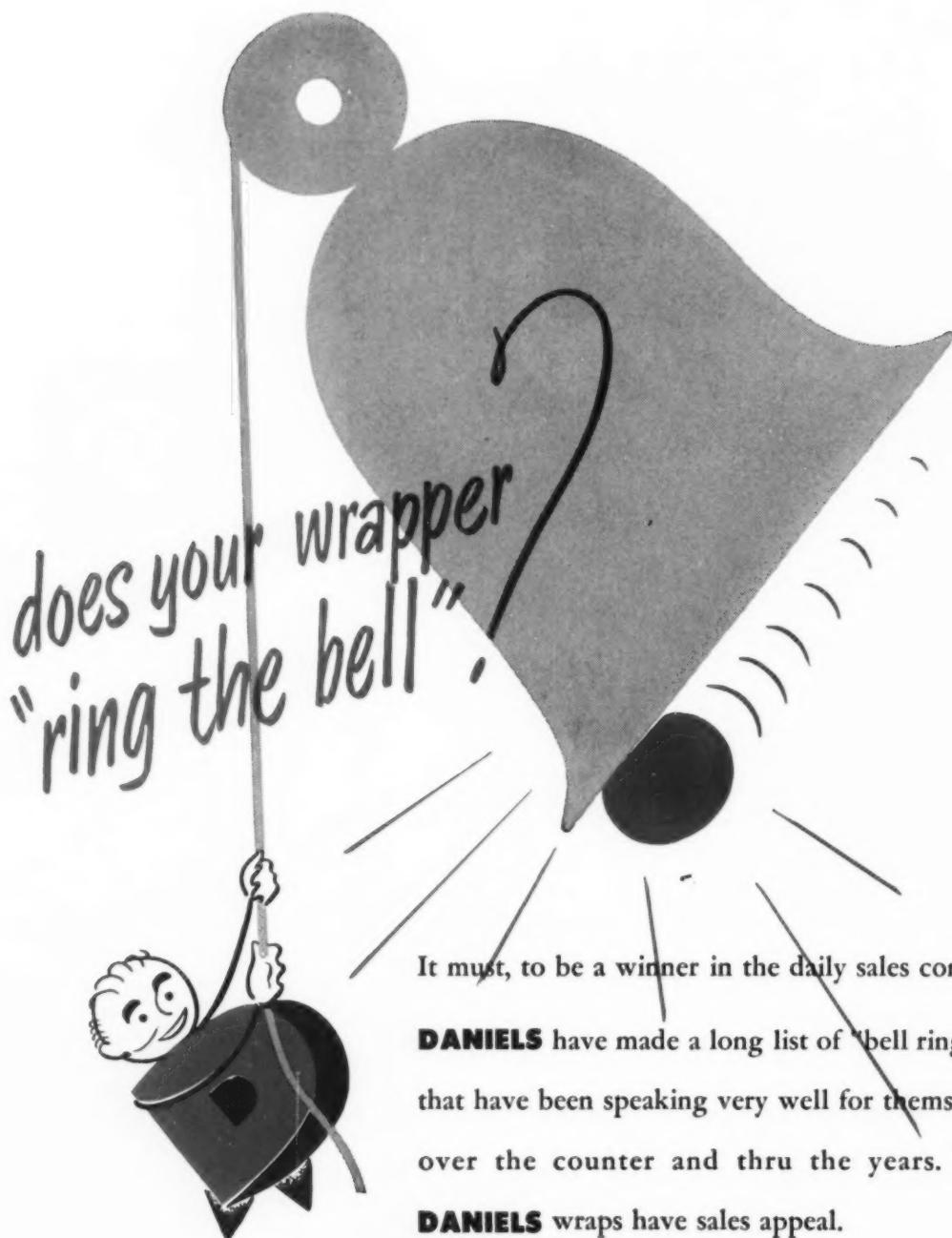
MODEL W R

for Cash Register, Adding and Bookkeeping Machine, Telegraph and Gummed Tape Rolls, Streamers, etc., where small core diameter is desired.
Machine stops automatically when desired roll diameter is reached.
Working speeds up to 330 feet per minute.
39 $\frac{1}{2}$ " and 49 $\frac{1}{2}$ " roll capacities.



MODEL R W O

for Photographic Film, Roll Films, Cellulose Foils, Waxed Paper, etc.
Specially-designed dual rewinding shafts permit control of tension of each individual strip, producing rolls of uniform firmness.
Working speeds up to 500 feet per minute.
35" roll capacity.



It must, to be a winner in the daily sales contest.

DANIELS have made a long list of "bell ringers" that have been speaking very well for themselves over the counter and thru the years. Yes,

DANIELS wraps have sales appeal.

We invite Inquiries



Daniels

RHINELANDER, WISCONSIN

There is a **DANIELS** product to fit your needs printed in sheets and rolls . . . transparent glossine • snowdrift glossine • superkleer transparent glossine • lard pak • bacon pak • ham pak grease-proof • sylvania cellophane • laminated papers • special "Heat-Seal" papers.

PREFERRED PACKAGING SERVICE

SALES OFFICES: Rhinelander, Wisconsin
Chicago, Illinois . . Philadelphia, Pennsylvania . . Akron, Ohio
Denver, Colorado . . Dallas, Texas . . Los Angeles, California

creators • designers • multicolor printers

Which ink should you use for soft-finish prints on paper?

Both are designed for flexographic and gravure printing



BBD HYDROTONE INK for all absorbent papers

(see top sample)

This is the original water-type ink—low in first cost and economical in use because it needs only water for thinning and washups. Use HYDROTONE for brightly colorful, soft or matte-finish effects on decorative and trademarked papers, gift wraps, notion bags, paper cups and containers, liners for corrugated and fibre cases. Fully opaque, HYDROTONE prints clean and sharp...lays evenly...is high in color strength. HYDROTONE may be overprinted without danger of "picking"...withstands embossing and corrugating. Fast-drying, HYDROTONE may be used at press speeds up to 500-feet per minute, yet will not pile up on rollers and plates or fill in etched cylinder cells.

* * *

BBD VELVATEX INK for all papers

(see bottom sample)

The alcohol-soluble ink that prints with a rich velvet finish on all kinds of paper...both absorbent and high-finish stocks, including glassine. VELVATEX will not bleed when overprinted with hydrocarbon or petroleum-type lacquers and varnishes...will not cause lightweight tissue to curl or wrinkle. Use VELVATEX with excellent results on gift, display, trademarked and other decorative papers...as well as labels, bags, wraps, shelf liners and other specialties. High in color strength, VELVATEX thoroughly hides paper structure. It lays smoothly and gives uniform coverage of solids...clean, sharp reproduction of type matter. Extremely resistant to water and rubbing, VELVATEX also has a high block-point...stands up under corrugating, wet and dry hot die-cutting and creasing.



Bensing Bros. and Deeney

SALES COMPANY

Flexographic Ink Specialists

PHILADELPHIA • CHICAGO • LOS ANGELES

WAKEFIELD, MASS. • MONROE, LA.

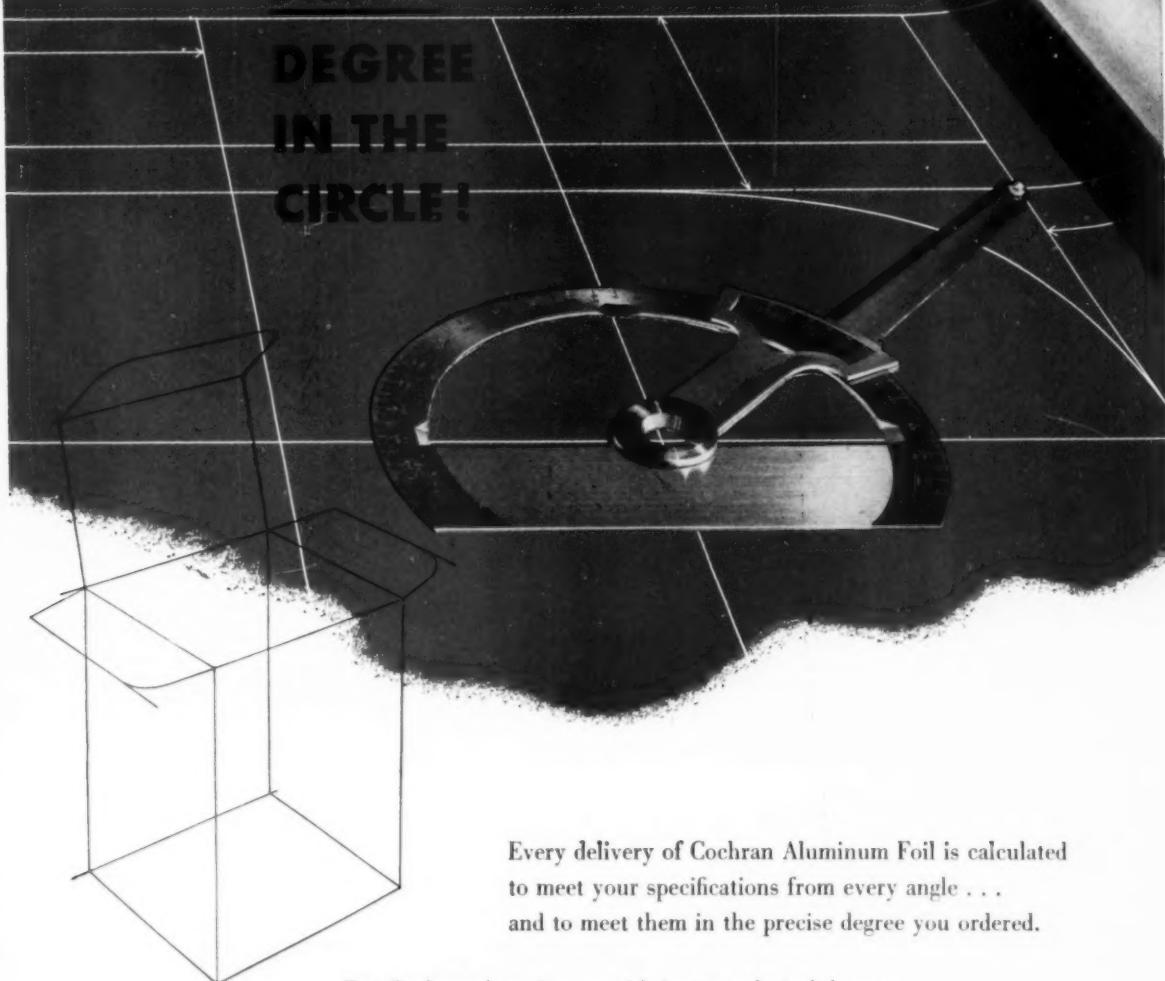
Get more information about both these BBD INKS...and BBD's famous "shirt-sleeve" technical service...by contacting your nearest BBD office—or write direct to BENSING BROS. & DEENEY, 3301 Hunting Park Avenue, Philadelphia 29, Pa.



ANCHOR HOCKING GLASS CORPORATION
LANCASTER, OHIO
CORDIALLY SUGGESTS
THAT IF YOUR PRODUCTS
HAVE EYE AND APPETITE APPEAL
THE GLASS PACKAGE
WILL DO A BETTER SALES JOB FOR YOU
AND REQUESTS THE OPPORTUNITY
TO SHOW YOU
HOW WELL THEY CAN BE PACKED IN
ANCHORGlass CONTAINERS
AND
PROTECTED BY THE RIGHT TYPE OF
ANCHOR CLOSURE

THE
EXTRA

DEGREE
IN THE
CIRCLE!



Every delivery of Cochran Aluminum Foil is calculated to meet your specifications from every angle . . . and to meet them in the precise degree you ordered.

But Cochran doesn't stop with just a technical degree of excellence. We deliver, as well, an extra degree of service . . . a unique, personalized service that goes far beyond ordinary business standards. People who deal with us will tell you how much this means.

Cochran FOIL COMPANY
INCORPORATED LOUISVILLE 10, KENTUCKY

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San Francisco 8, California

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Los Angeles 38, California

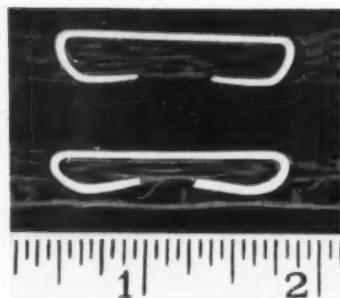


with International Stapling Machine

Uarco, Inc., Chicago manufacturers of business forms reports a saving of more than \$1650 a month with an International Retractable Anvil stapling machine.

The stapler, a double headed, air operated model priced at only \$3,400 (it almost paid for itself in 60 days), is used to close filled cartons from the outside, top and bottom simultaneously. Daily volume is 2,500 cartons of various sizes . . . in a 12-hour period.

75% SAVING IN MAN HOURS . . . Prior to 1947,



All International Staple Machines feature the penetration control which permits either standard or concealed staple clinching as shown in actual size cross section view at left.

Uarco closed cartons by another method. Processing 2,500 cartons required 48 man-hours. Today, with an International Retractable Anvil Stapling Machine, it takes only 12 man-hours to close 2,500 cartons.

"HIGHLY SATISFACTORY". . . Here's what John A. Tanovich, chief layout-material handling engineer has to say about International stapling equipment: "We have found your C2E carton stapling machine a highly satisfactory unit with the desired flexibility to staple any of our cartons to meet the packaging requirements of interstate shipments. When coupled with our system of conveyors, this stapling machine accounted for a minimum of \$20,000 per year as its share of packaging savings."

What's your closure problem? If you ship in corrugated or fibre containers, an International staple machine can close them better, faster and more economically. Write for detailed information.

a seal of security



INTERNATIONAL STAPLE & MACHINE CO.

806 Herrin Street, Herrin, Illinois
Distributors in principal cities

here's a pointer
for increasing sales

GET BUY-APPEALING

Milprint

PACKAGES

Milprint Printed Polyethylene



Milprint Printed Polyethylene



Milprint Printed Cellophane



Milprint Printed Cellophane



Milprint Printed Foil



Milprint Printed Foil

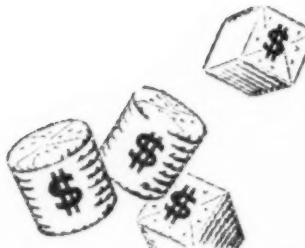
North—East—South—West...Milprint packages prove their ability to attract and sell more customers! Appealing designs, gay colors, and crisp precision printing stop shoppers, tell them your sales story quickly...and nudge your product into Mrs. America's shopping basket!

Choose from the widest variety of packaging materials and printing processes available anywhere — at Milprint, where your package is designed by experts, produced by craftsmen, and backed by over half a century of experience. You'll find it pays to call your Milprint man—first!

Milprint INC.
PACKAGING MATERIALS
LITHOGRAPHY & PRINTING

General Offices, Milwaukee, Wis. • Sales Offices in Principal Cities
This insert printed by Milprint, Inc.

Printed Cellophane, Plastilm, Polyethylene, Acetate, Saran, Glassine, Foils, Folding Cartons, Bags, Lithographed Displays, Printed Promotional Material



There's EXTRA profit in these packages

...because of the built-in economies of the



NEW LYNCH Model RS



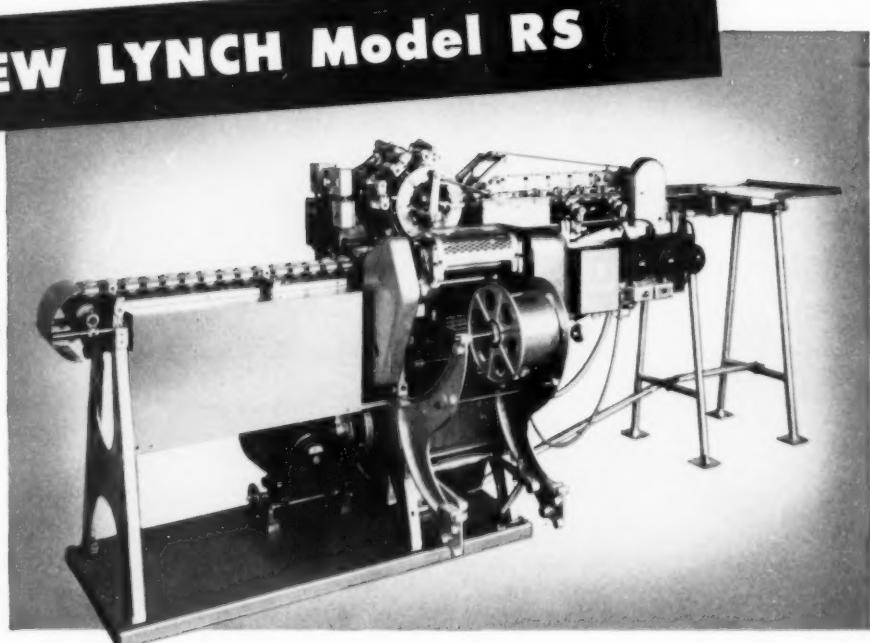
MORE ADAPTABLE



ACCURATE
WRAP REGISTER



MORE SALES APPEAL



Whether you wrap multiple-unit packages of round or square sandwiches—or both—the new Lynch Model RS will do a precision job at higher speed. The RS has a long list of new design features that simplify problems of day-to-day production control—and lead to bigger long-term savings. For instance, the RS compensates for normal irregularities in diameter or thickness of sandwiches. It cuts scrap losses to a point that will surprise you—and yet wraps up to 100 multiple-unit packages per minute.

The new Lynch RS can be directly connected to spreader equipment. Variable speed drive is standard, and whenever the intake is stopped the RS will complete the cycle on the final package in the wrapping head. A quick and simple change of wrapping heads adjusts the RS from round to square packaging. Supplied with optional equipment, the RS will accommodate packages of $1\frac{1}{4}$ " to 2" in width and from $1\frac{1}{2}$ " to 3" in length. At your call, our field engineers are available to explain more about the new Lynch RS. Write, wire or 'phone.



PAN AIR
COMPRESSORS



ICE CREAM
SANDWICH
WRAPPING
MACHINES



WRAP-O-MATIC
CANDY & COOKIE
WRAPPING
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PAPER
PACKAGING
MACHINES



MORPAC
BUTTER & OLEO
PACKAGING
MACHINES



Glass FORMING
MACHINES

Rejections giving you trouble?

Use the triple-tested

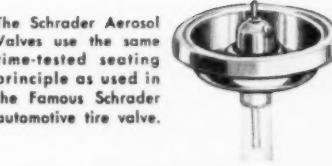
PRESDOME VALVE

No aerosol product is better than its valve—and no valve is better than Schrader's... produced with fully automatic machinery... nothing but raw materials bought outside. Schrader has the greatest research and manufacturing facilities.

Schrader Aerosol Valves mean lower rejection rates because they receive the most thorough inspection... they're triple tested... every critical component part 100% machine tested for correct tolerances. Elimination of "dud" returns from retailers protects the reputation of your product.

Schrader Aerosol Valves offer improved performance. They are positive sealing, with quick positive spray shutoff. Good-looking Presdome Caps give easy and comfortable finger-tip operation to your aerosols. You merely press the countersunk dome. Presdome Caps also have eye-catching sales appeal! Various Colors can be made to match your label on request.

The Schrader Aerosol Valves use the same time-tested seating principle as used in the famous Schrader automotive tire valve.



Schrader

REG. U. S. PAT. OFF.

Use our research facilities to develop a superior Aerosol package. Send for samples and further information.

AEROSOL VALVES made by the
manufacturer of the Standard Tire Valve since the first Automobile

MAIL THIS COUPON TODAY

A. SCHRADER'S SON

Division of Scovill Manufacturing Company, Incorporated Dept. MP
470 Vanderbilt Avenue, Brooklyn 38, N. Y.

Please send me Samples Brochure Price List

Name _____ Title _____

Company _____

Address _____

FREE! Send no money! Print plainly, mail today!

The above headline is merely an old advertising device to call your attention to Einson-Freeman's annual Christmas keepsake... offered with good will towards men, and kindly feeling for other dumb animals... if you ask for it on your business letterhead.



The homely hombre in left field (*self-sketched, so he can't sue us for libel*) is Ed Smyth. He hails from St. Louis which is Out West somewhere.

He liked our 1952 keepsake, George Bellows' "Gramercy Park," and sent a hand-drawn letter stating same. He added, "Have you ever thought of doing a Russell or Remington one of these Xmas? It'd make lots of us ex-cowboy and Indian players mighty happy."

Mr. Smyth is not only an artist, but a good judge of character. Our character, anyway.

For several years, our Christmas keepsakes have been reproductions of the work of eminent American artists, such as Grant, Waugh, Curry, Benton, Wood, Bellows.

Now, Einson-Freeman has art directors who have convictions about art, salesmen who have convictions, lithographers who paint on Sunday; and Al Hailpary, our President, knows a couple of live artists personally. So the selection of the keepsake artist usually results in a rhubarb. Often to the neglect of our business—which is making superior displays for sophisticated advertisers.

The Remington suggestion occasioned neither dissent, nor distraction from business—which is a nice compliment to Messrs. Smyth, Remington.

THE Remington rated first by art critics is privately owned, and not available. But second in the consensus of critics is "The Emigrants," and permission for reproduction was secured from the Museum of Fine Arts of Houston.

Frederic Remington had advanced from popular illustrator to fine artist in his own lifetime, and his repute has grown since his death.

At first, neither publishers nor critics were much impressed with his work. In the eighties, the Noble Redman was a national nuisance who discouraged European investors. Remington's crude subjects and realism were resented.



Remington's importance rests on his visual reporting of the pioneer West, a lasting reference of a race of men and a way of life irrevocably gone as the Aztecs.

BORN IN 1861 in Canton, New York, Frederic Remington later lived in Ogdensburg. He spent two years at Yale, in the newly established Art School; played football with Walter Camp, boxed, drew cartoons for the Yale Courant.

Dissatisfied with conventional art instruction, he quit Yale. A small legacy from his father, and unrequited love sent Remington on the first of many Western trips. He worked as cowhand, wagon driver, or drifted. Later, he spent several summers with the Army, and among Indians.





THE EMIGRANTS by Frederic Remington, lithographed full size 26 $\frac{1}{4}$ by 17 $\frac{5}{8}$ inches.

In 1886, his work began to appear in the magazines, and thereafter was much in demand. He served as war correspondent during the Sioux uprising in 1890, and in Cuba during the Spanish-American War. He illustrated the books of Francis Parkman and Theodore Roosevelt; and was a successful sculptor.



In 1903, Collier's Weekly began the publication of paintings in full color in double spreads, at \$1,000 per subject; and ran as many as twenty reproductions a year. Reprints of the series were extremely popular and are collectors' items today.

Remington died suddenly, after an operation for appendicitis in 1909, in his forty-eighth year. The known total of his drawings and paintings

totals 2,739, published in forty-one periodicals and 142 books. He was the author of eight books.



OUR reproduction of "The Emigrants" was made in our Fair Lawn plant this past summer; and became the almost personal project of our technicians. The lithograph is full size, full color, an exact and beautiful rendition of the painting.

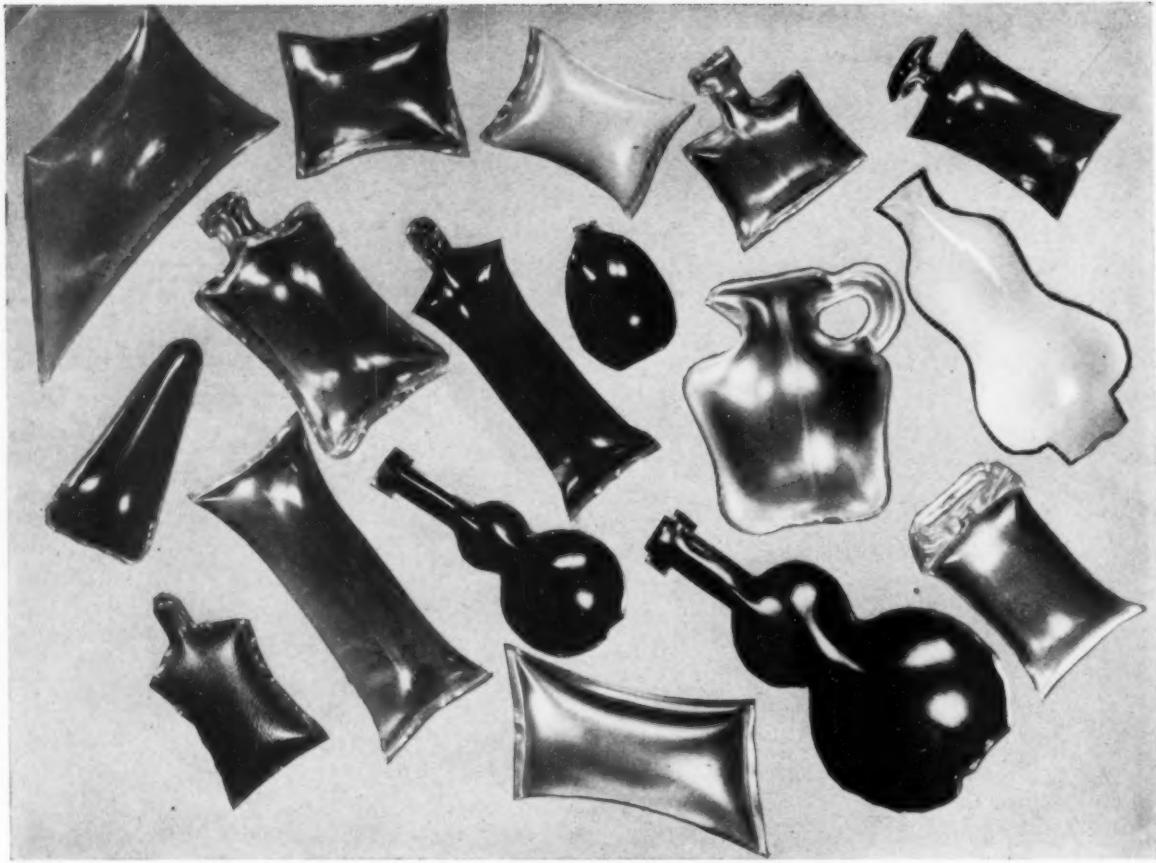
The edition is limited to 2,000 copies. Your request in writing on a business letterhead will bring one . . . with the season's greetings of . . .



Einson-Freeman Co., Inc.

Artistic and altruistic lithographers

Starr & Borden Avenues • Long Island City 1, N.Y.



The above illustrates just a few liquid or paste-filled packages and collapsible tubes in different shapes which have been produced by the RADO PROCESS.

We will pack your products in packages of your own design, decorate them with embossing, and print them in up to five colours.

RADO PACKAGING SYSTEM

British Patent Nos. 599,174, 599,183 and 675,073 U.S.A. Patent Nos. 2,530,400 and 2,517,027

PATENTS IN 36 OTHER COUNTRIES AND FURTHER PATENTS PENDING

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Cables: Telabor, London

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SERVICES, 81/2 Aungier Street,
DUBLIN. Tel. Dublin 53524



Colorcast
DRUM FINISHED







THESE WINDOWS GIVE ENVELOPES

More Serviceability, Longer Shelf Life

Packages of Christmas seals and tags are made up months ahead of the holiday season. Stores often carry them over from one year to the next. Shoppers give them a lot of handling.

But with windows of BAKELITE Vinyl Plastic Cast Film, they always look fresh. There's no discoloration, cracking, or aging. Clarity is unsurpassed. The tough, flexible film keeps contents safe while enhancing sales appeal.

Used to package hard, bulky contents like nuts and bolts, it withstands contact with their rough edges and sharp corners. It can be heat-sealed to form a strong, lasting closure. It's resistant to moisture, gases, grease, and chemicals. Laminating BAKELITE Vinyl Plastic Cast Film to foil provides a combination of toughness, attractiveness, and sealability. A special formulation is odorless and tasteless.

You can get all these features for your package by using BAKELITE Vinyl Plastic Cast Film. Learn more about it by writing Dept. SR-55.

Data courtesy Dennison Manufacturing Co., Framingham, Mass.

DECEMBER 1953

BAKELITE
TRADE-MARK
VINYL PLASTIC
CAST FILM

—
BAKELITE COMPANY
A Division of
Union Carbide and Carbon Corporation
UCC
30 East 42nd Street, New York 17, N.Y.

NOBODY HAS AS MUCH EXPERIENCE AT MOLDING POLYETHYLENE AS

TUPPER!

The logical molder for you to consult regarding that product or package of yours which is to be made of polyethylene is Tupper. Tupper has done more than any other molder to make molded polyethylene a practical reality.

Aside from having designed, patented, and promoted successful seals, closures, and dispensers for polyethylene containers, the Tupper Corporation has vast experience in every phase of polyethylene packaging and polyethylene injection molding. This experience will be of major importance in improving your product, in reducing your costs, when Tupper goes to work for you.

Tupper's combination of experience, technical ingenuity, and the most modern equipment is at your service for the custom molding of your product in polyethylene. You can do no better than the best ... and the best at molding polyethylene is Tupper!

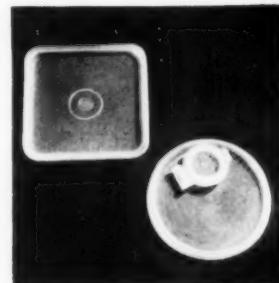
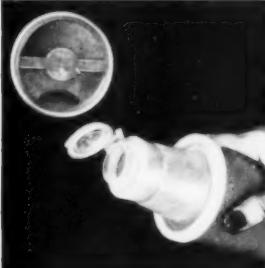
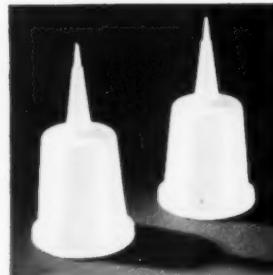
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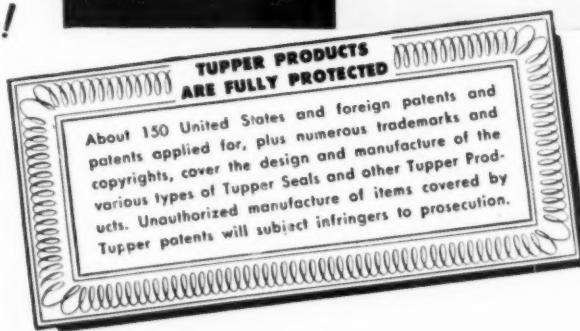
Address all communications to: Dept. MP-12

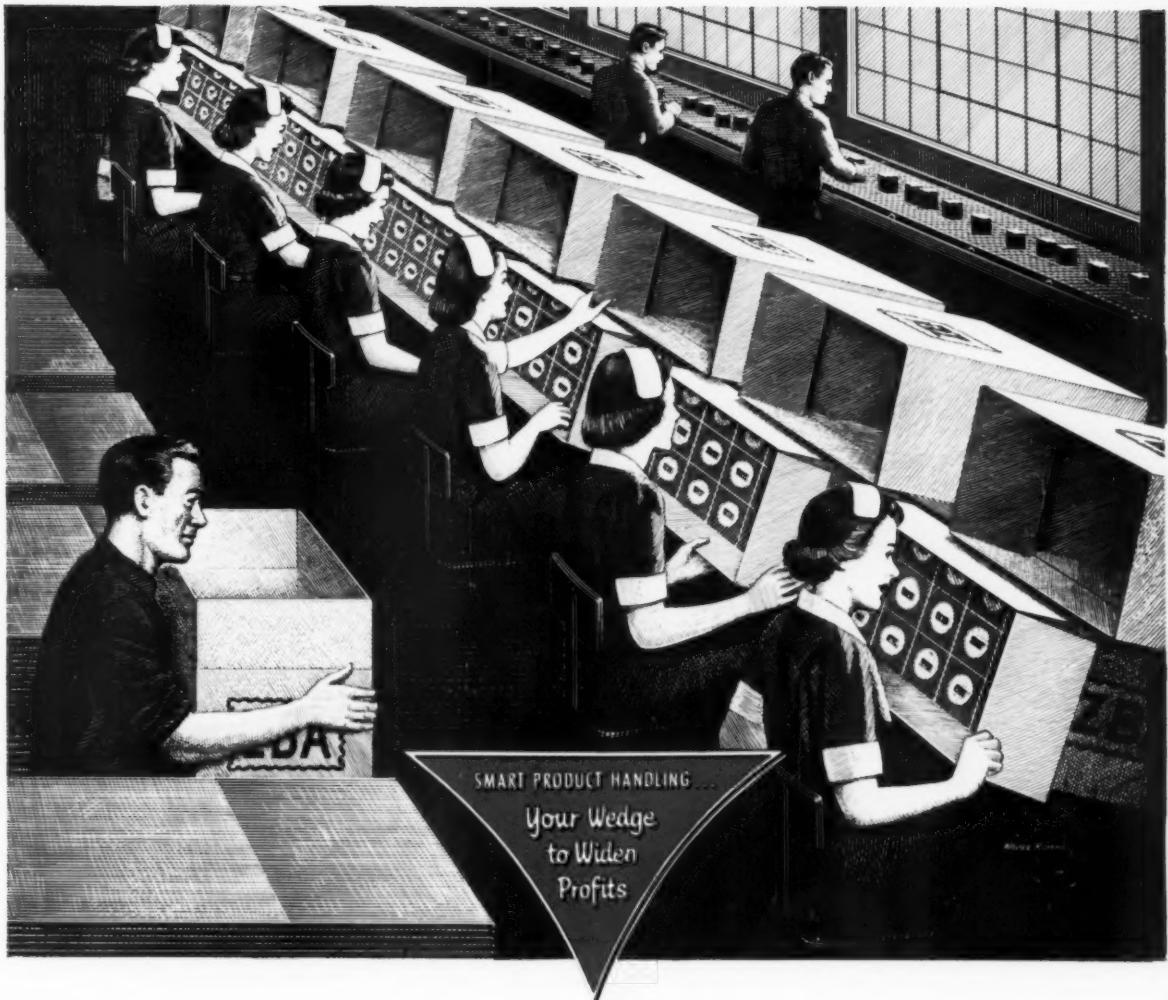


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The more efficient you make your packing operations, the more costly every interruption becomes. That's why every Gaylord box is precision made to exact specifications...to assure smooth, continuous operation without jamming or sticking. Very often, the money saved by this increased efficiency in packing more than pays

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Shelf appeal for fast sales is equally important. Can both be accomplished at lower cost?

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KVP SUPER Kalakote seals air-tight — preserves crispy goodness. Its pure whiteness is a badge of cleanliness—a perfect background for colorful design and printing. It is made-to-order for today's high speed wrapping machines.

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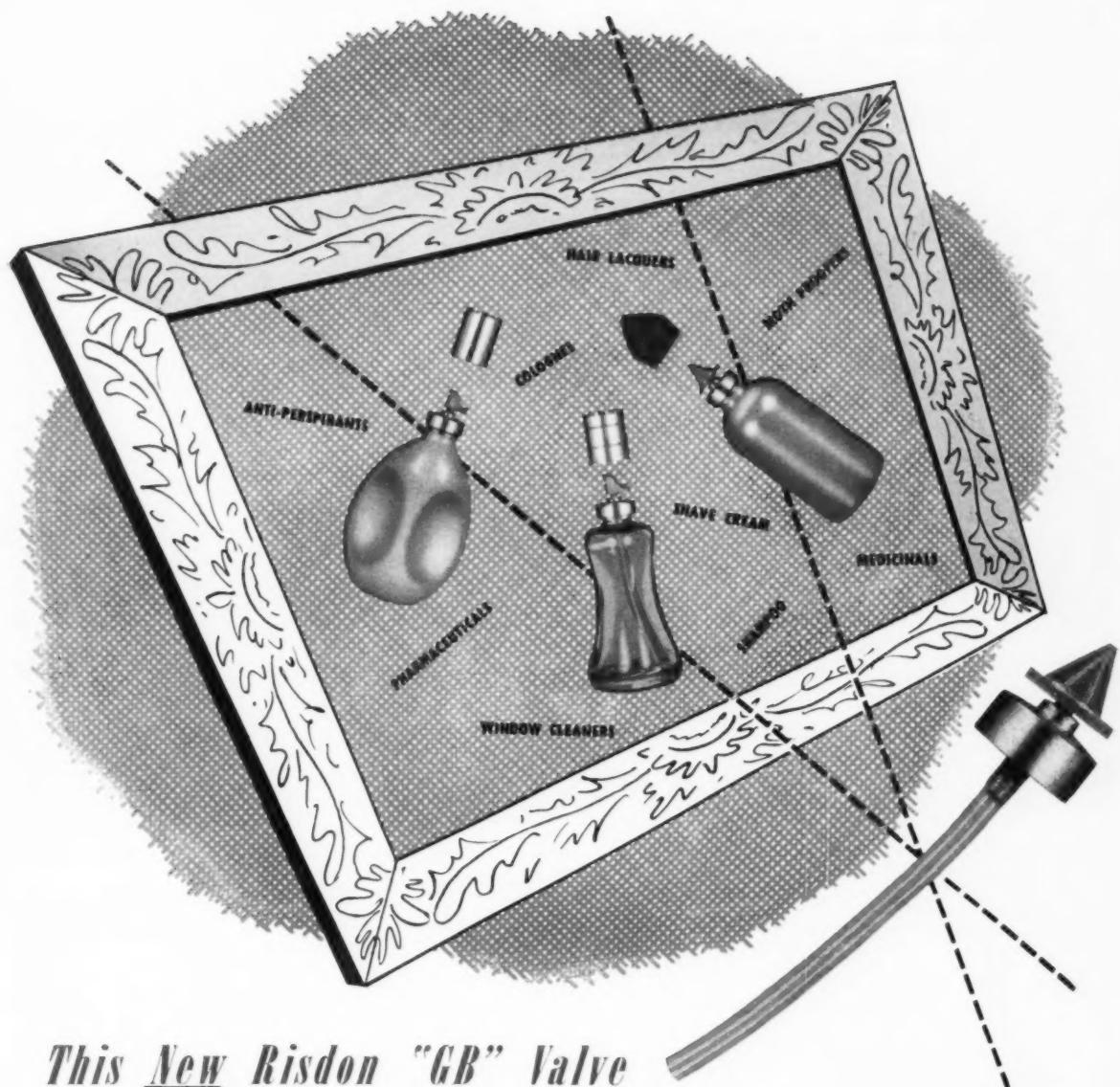
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RI-34



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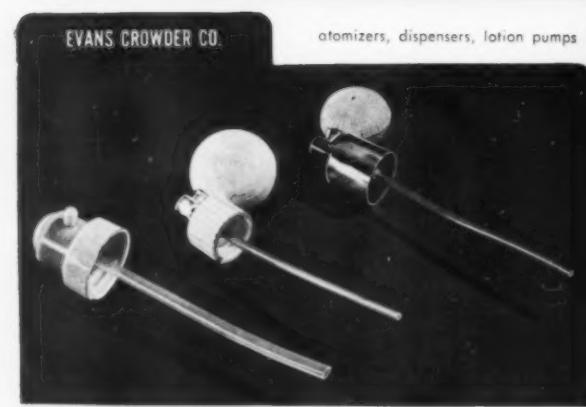
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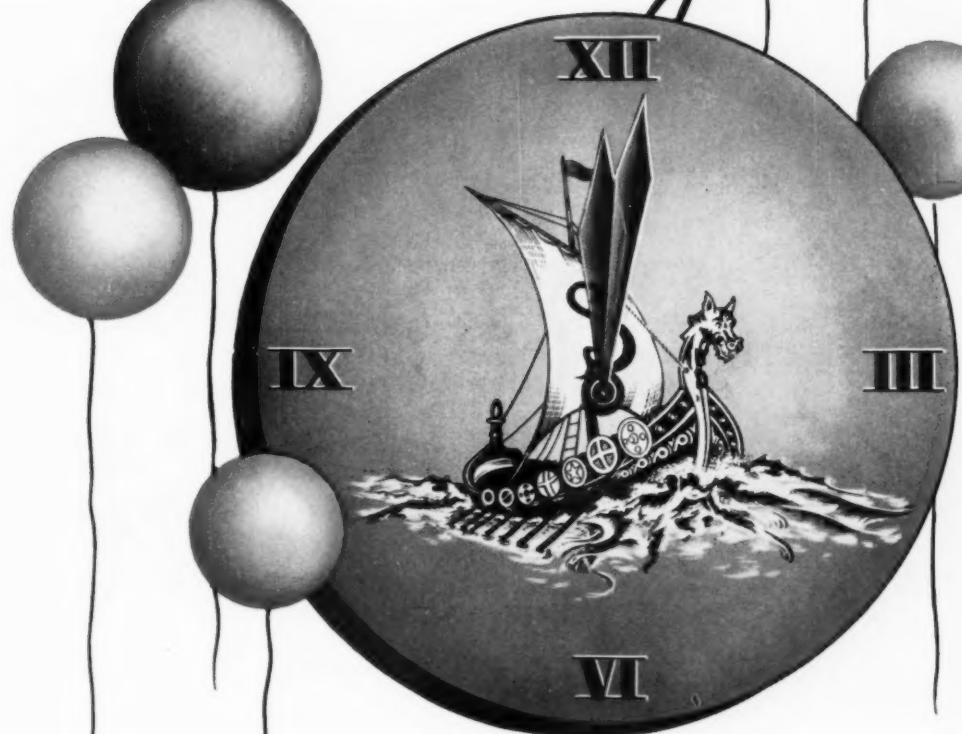
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DECEMBER 1953

79

If your product is "Taken on Faith"



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Looking for a non-sticking, heat-sealable food board with good grease and water resistance for trays, lids, and cap liners? Investigate Reggie Ridgelo's POLYEON which combines the outstanding properties of Polyethylene with selected materials, to help produce superior packaging for your customers.



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Black and gold "book" sets off
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Dennison designers created the packages to fulfil these objectives. These boxes serve as
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Smart, tweed-surfaced tray
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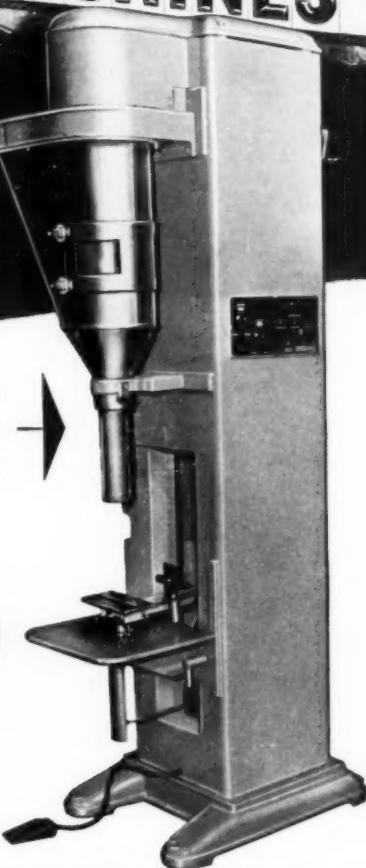
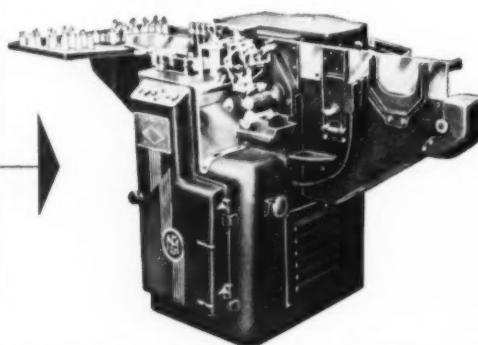
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SHORT CUT to packaging information

A high proportion of your routine questions about package design, materials and manufacture, plus lots of other questions which are genuine "puzzlers," can be answered by referring to your copy of the 1954 MODERN PACKAGING ENCYCLOPEDIA.

Here, readily accessible, arranged for quick reference, you will find *basic* as well as *specialized* packaging information. It contains data on the chemical and physical properties of different packaging papers . . . on formulating package specifications . . . on decorative packaging . . . on the new plastic containers . . . on films, foils and laminations . . . on machinery and equipment . . . on literally thousands of additional subjects.

Get acquainted with the MODERN PACKAGING ENCYCLOPEDIA right away. Refer to the many fact-filled ads. Explore the extensive Directory Section which lists suppliers of materials, equipment and services. Use it often. Doing so will be to your advantage.

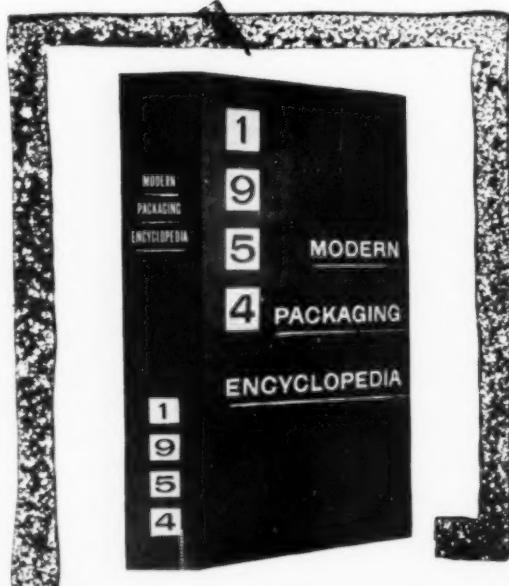
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ARE YOU CONFUSED BY TRADE NAMES?

The Packaging Industry is beset by a welter of trade names, many of them confusingly similar. The Directory of Trade Names, beginning on page 718, lists them alphabetically, describes the product, and gives the manufacturer.



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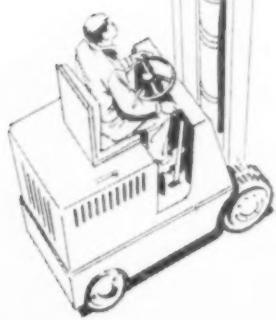


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SEALING TAPE • MOISTENING MACHINES • TECHNICAL PAPER PRODUCTS

VOLUME 27

NUMBER 4

DECEMBER 1953

Modern packaging



1. APOTHECARY JAR is molded of polystyrene plastic as an ointment sampler container for White Laboratories, Inc.



4. CONTOURED CASE for Sunbeam electric shaver has a molded reel that snaps into the base for storing the electric cord.



3. 40 ACCESSORIES are easy to keep in order in this compartmented polystyrene box for a power-tool set by Loyd Seruggs.

In the phenomenal growth of the plastics industry, particularly during the past decade, molded packages and other forms of plastic containers, closures and wraps have played an ever-increasing role. Even the most casual observer has been impressed with the tremendously accelerated use of plastics for packaging films, flexible polyethylene squeeze bottles and coatings on paper and film. Fully as significant has been the steady growth of molded plastic packages and containers, although the variety of forms and the multiplicity of products involved have perhaps obscured its magnitude.

It would be an exaggeration to say that molded plastic packages have attained a "work-horse" status. Indeed, their design capabilities, inherent color and transparency, and fundamental quality of permanence may always exclude them from that category. However, there can be no question that with molding materials once more in plentiful supply, packages of this type are finding increasing acceptance for a range of products as divergent as cottage cheese, electric shavers, cosmetics and carving sets. And their steadily multiplying use cannot be attributed solely to their novelty appeal, but is based

**Food containers
feature
visibility and re-use**



5. ICE-CREAM flavors are invitingly appetizing when seen through Golden State's polystyrene pints.



6. CHEESE BOXES in rectangular, round and half-moon shapes give added sales appeal to Frank Ryser cheese assortments.



7. READY-TO-EAT gelatin desserts and vegetable salads are a hit in transparent polystyrene containers with lug-lock covers.

on a number of practical advantages.

Improved, lower-cost plastic materials, higher-capacity molding equipment and more complete knowledge of design possibilities are among the factors which have helped to elevate molded plastics to the position they now occupy in the packaging field. Molded plastic packages are certainly nothing new; they have been used for years with luxury merchandise such as wrist watches, rings and other jewelry items, and continue popular for this class of merchandise. But, particularly with the rise of the injection molding process, which permits the rapid production of strong, light-weight, colorful or transparent containers, molded plastic packages have been adopted for many additional types of products previously limited to other packaging materials.

Several types of thermoplastics—notably polystyrene, cellulose acetate and polyethylene—now dominate the field of molded plastic packaging.

One of the earliest available thermoplastics, cellulose acetate, has been used for years for molded packages. However, molded cellulose acetate is not customarily used in packaging food products.

Polystyrene, first produced commercially in the United States in 1938 and vastly improved during the intervening years, has rapidly become the most popular thermoplastic material used for molded packages. Output of this material soared from 66,768,000 lbs. in 1946 to nearly 413,000,000 lbs. in 1952.

According to U. S. Department of Commerce figures, approximately 47% of all polyethylene resin in 1951 was being consumed in the manufacture of containers and packaging materials. With present suppliers of polyethylene increasing their production facilities and several additional suppliers preparing to enter the field, it is estimated that by 1955, annual production of polyethylene may

reach 340 to 380 million pounds. The outstanding outlet for molded polyethylene containers—the ubiquitous blow-molded "squeeze bottle"—is beyond the scope of this report, having been adequately covered in previous articles.¹ However, polyethylene is also widely employed in the production of molded re-use type containers for many food products. In addition, many molded polystyrene food containers are supplied with polyethylene covers, since the flexibility of the material gives it unusually effective sealing properties.

Perhaps the greatest single factor encouraging broader use of molded plastic packages has been the ascendancy of self-service merchandising. This has placed an ever-increasing selling burden on the package itself. Today, the supermarket psy-

¹See "Squeeze Bottle Boom," MODERN PACKAGING, Sept., 1949, p. 76; Squeeze bottle development, 1946-1952, MODERN PACKAGING, March, 1952, p. 136; "Design Factors in Blow-Molded Plastic Bottles," MODERN PACKAGING, Oct., 1951, p. 11 and Nov., 1951, p. 132.

chology of self selection pervades the entire concept of retailing.

Manufacturers and retailers have solid reasons for favoring molded plastic containers for many types of products. Their light weight brings reduced shipping costs, while their sturdiness protects products in shipment, cutting down on damage and returns and affording longer shelf life. Displayed in the retail outlet, molded plastic packages impart sparkle and color. Transparent packages, through which the actual merchandise may be easily seen, save time for the retailer and reduce handling by the consumer.

Molded plastic packages lend themselves to dispensing features which facilitate the use of hard-to-handle products such as razor blades, pills and lighter flints. They are resistant to breakage and shattering, therefore convenient for long re-use in the home.

Rigid plastic packages serve as permanent containers for small parts, such as drill bits and precision instruments, and provide ready-made carrying cases when the product is to be transported. Many such containers are molded with integral form-fitting compartments tailored to the dimensions of the product and eliminate the need for supplementary inserts or partitions.

Recent surveys by the U. S. Department of Commerce (National Production Authority) indicate that the cost factor is one of the greatest obstacles to greater usage of molded plastic packages. Some firms reported² that these packages were used only where price was a secondary consideration, such as jewelry. A watchmaker, however, said that by ordering large quantities of rigid plastic containers, he was able to attain lower unit cost than for packages previously used. Many retailers stated that the increased cost of merchandise in molded plastic containers did not deter sales. In one large Midwestern department store certain cosmetics in plastic containers outsold those packed in other types of packages, even though the selling price was as much as 25% higher.

Care must be taken in selecting the proper plastic material to meet the requirements of the product. Fragile lids and hinges and the relative softness of some types of plastics,

²NPA "Containers and Packaging," Spring, 1953, edition.

leading to container damage and scratching, or the incompatibility of product with package are sometimes limitations. Most of these difficulties, however, can be overcome through careful study of design and more scientific selection of molding materials.

All molded plastic containers fall into one of two broad categories—stock and custom. Stock containers, designed to accommodate a standard type and size of product made by a number of manufacturers, are available without the additional cost and delay of making a special set of molding dies. Custom boxes, on the other hand, are made up to specifications on an exclusive basis for the owner of the molding dies.

Only the manufacturer or selling agency can judge whether a custom-molded container is worth the extra cost and waiting period it involves. Since the preparation of a set of dies may require from several weeks to two months or more, the manufacturer must allow plenty of lead time for his marketing plans. If time is of the essence, a stock container may be the answer. It may be "customized" to some extent by the combination of colors used in base and lid, by the use of inserts, or by applying the product name directly to the package by hot stamping, silk screening or by the use of a removable die insert.

Quantity is an important factor in

making a decision regarding a custom-molded package. The relatively heavy initial die cost must be amortized over a large number of packages if the cost of the container is to be justified. One large supplier of plastic molding materials estimates that a custom designed and molded container may be uneconomical unless the run totals at least half a million units. Each case must be decided on its own merits.

As a general rule, products with a relatively high sales cost per unit, such as jewelry, tools, electric shavers, etc., are more adaptable to molded plastic packaging than low-cost items which are quickly used up or discarded.

If an item to be packaged is quickly expendable—a food product, for example—the molded plastic container must have re-use value for the



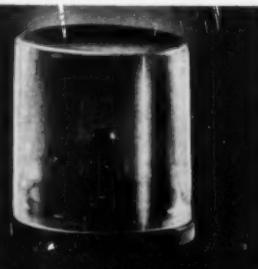
9. EASY-TO-READ label on Upjohn's Cortef shows through polystyrene box with polystyrene-rubber copolymer tray.



8. POCKET-SIZE snake-bite kits for construction crews, marketed by Medical Supply Co., are molded of cellulose acetate butyrate plastic.

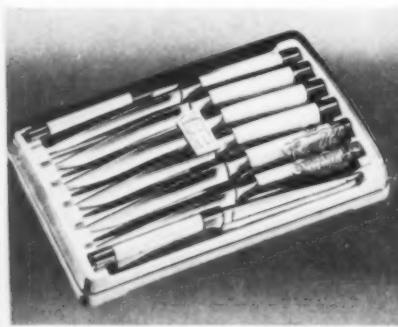
Functional and convenient plastics for pharmaceuticals

10. SPINDLE molded in base of two-piece Ethicon Suture box of polystyrene holds spool.





11. MOLDED SUPPORTS keep Craftsman Power Wood Bits in place, easy for user to select.



12. PERMANENT CASES are provided by these attractive molded polystyrene plastic packages for Carvel Hall steak knives.

purchaser. The classic example, easily found in any supermarket, is the polystyrene refrigerator dish, which makes an ideal food package when properly sealed. It appeals to the housewife's ever-present desire to get something extra for her money—as long as it is useful. If a molded package for a low-cost item has no re-use value, it must provide some convenience feature or other plus value not easily obtained with other types of packages. The molded plastic dispenser-pack for razor blades, which makes the blades easier to use and which actually costs less than a competitive type of package due to the elimination of separate double wraps for each blade, ideally illustrates such an application.

The prestige value of any molded plastic container is difficult to measure, but such a package, when well designed, immediately sets a product apart as "something special."

Current trends in molded plastic containers may be studied by examining typical packages now used in several merchandise categories.

Food products

Molded plastic containers for food products have generally taken the form of re-use refrigerator-style boxes or tumblers. The product itself is soon

consumed, so that to justify its use, the package must be capable of use for some additional purpose, whether it be a flower pot or a container for food left-overs.

Many cheese producers have adopted transparent molded polystyrene containers for various types of packaged cheese, having found in this type of package desirable display visibility, protection against handling in the retail outlet and a popular re-use feature that appeals to the consumer.

Among extensive users of such packages for cheese products is the Frank Ryser Cheese Co., Mayville, Wis. Some of the molded clear-polystyrene containers used by Ryser for various cheese assortments include rectangular, round and half-moon shapes (Fig. 6). The latter two designs are used for packaging three or six wrapped and labeled wedges of cheese. The rectangular container holds four 3-oz. links of Smokey, Cheddar, Garlic and Blue cheese stuffed in saran casings.

Cottage cheese, ready-prepared gelatin desserts, salads and ice cream are being seen more frequently in molded plastic containers (Fig. 7). Manufacturers of filling and capping equipment have pointed out the need for a standardization program to as-

Molded packages give new sales



13. COMPACT CASE for Universal travel iron doubles as a storage container for the iron.



14. COMPARTMENTS in container for Manning-Bowman vibrator hold vibrator, four attachments and cord.



15. MOUNTING STUDS molded into polystyrene container for Electro-Voice electronic parts hold units with screws.

sure more efficient handling of these on automatic equipment. Many of the cups and tumblers are made without a beaded edge of the type needed to feed automatically from a dispenser onto the filling line. Many of the lids and covers used cannot be accommodated on automatic capping equipment and must be applied by hand. Manufacturers contemplating volume use of molded plastic containers for products of this kind should give this point careful consideration.

Hi-Hat Food Products, Providence, R. I., has begun using a clear, transparent, rigid molded polystyrene container for its line of ready-prepared gelatin fruit and vegetable salads. So striking is the transparent packaging, which shows off the mint green, lime and other salad colors, that the company reports the new containers have doubled sales to date. The products are delivered under refrigeration to all New England states, New Jersey and parts of New York by a fleet of 45 refrigerated trucks. The new molded containers, available in 8-, 16- and 32-oz. sizes, are supplied with one-turn lug lock covers. Land-O-Lakes Creameries are using these containers to package ice cream and a well-known sugar company, in a recent sales test using the container as a loaf-sugar package, moved 12,-

000 packages off shelves in two days.

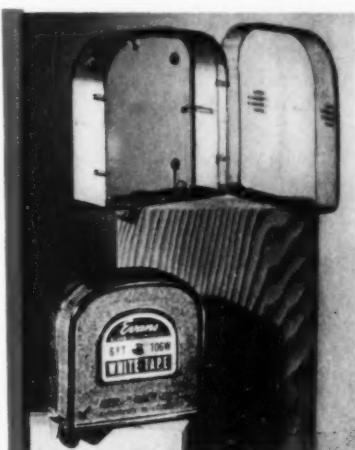
Realtree Foods, New Orleans, recently increased sales and brand recognition for its hogshead cheese by packaging 1-lb. portions of this product in a rigid molded polystyrene container measuring 2½ by 2½ by 5 in. in size. Previously, the company found that brand identity was lost when the product was sold in bulk. The container has enabled Realtree to gain an important competitive advantage by creating a year-round demand for the product.

Convenient 14-oz. tumblers molded of polystyrene in attractive metallic colors—red, green, peacock blue, satinwood, rust and rose—have been used with excellent results for packaging cream and cottage cheese and other dairy items. Used in conjunction with these tumblers are white molded polyethylene covers which provide an airtight seal for storage. The covers can be imprinted with suitable trade-name or product-name information. Sales appeal of the tumblers lies in their utility for serving various beverages, or as refrigerator containers for cheeses, jelly, preserves and many other foods.

Golden State Co., Ltd., a leading West Coast dairy organization, offers its ice cream in 1-pt. transparent rigid molded polystyrene containers

with a friction-type lid on which are molded the company name and the statement, "Fine Ice Cream," (Fig. 5). The center portion of the lid is left blank, affording room for attachment of a printed label carrying the company trademark and identifying the flavor of the ice cream. Due to the transparency of the package, most flavors can be identified visually.

Foremost Dairies, Inc., Houston,



19. POCKET TAPE is easily carried in cellulose acetate butyrate case with raised section to compensate for tab on the tape.

appeal to hardware and appliances



16. FAMILIAR in many homes is this polystyrene package for "Tot 50" stapler, with partitions for stapler and staples.



17. ACETATE VIALS are hardy perennials for lighter flints, drills, bits and other sharp-edged tools.



18. INJECTION-MOLDED acetate box holds Sears, Roebuck Craftsman cutter head and accessories.

Tex.; Andes Candies, Chicago; Beach Milk Co., Denver, Col., and XLNT Spanish Food Co., Los Angeles, are among the many companies which have successfully employed molded polystyrene containers for ice cream, fruit salad, vegetable salad and related food products. Screw-on and snap-on lids are available for the many stock re-use packages available for food products.

Hardware items, appliances, etc.

When Landers, Frary & Clark, New Britain, Conn., first introduced its light-weight Universal travel iron, the product was supplied with a "pseudo-suede" zippered carrying case. This proved to be a fairly adequate package, but did nothing for

the product from the eye-appeal standpoint. Further, the case did not provide complete protection for the iron when it was placed in a suitcase.

A specially designed molded polystyrene case has now been adopted for the travel iron (Fig. 13). Molded in crystal-clear material, the new container has a compartmented base which exactly accommodates the iron (with handle folded flat) and the cord. The slip-off-style cover has a pleasing decorative design molded along one side of the top, together with the Universal trademark and the words, "Travel Iron." The case, which fits without bulk into luggage and doubles as a storage container for the iron in the home, has smoothly rounded corners which cannot snag

or damage clothing. The successful results are prompting Landers, Frary & Clark to consider molded plastic packages for other items in the Universal line.

Manning-Bowman Div. of McGraw Electric Co., Elgin, Ill., recently introduced an electric vibrator which comes complete with four types of attachments or applicators in a molded plastic container. The base of the container, molded in ivory urea, is designed to provide compartments for the vibrator itself, the cord and the individual attachments (Fig. 14). It is used in conjunction with a clear, transparent polystyrene cover carrying the Manning-Bowman name.

The Loyd Scruggs Co., St. Louis, Mo., turned to molded polystyrene for packaging its Precision Power Tool Set, which includes a hand-sized precision power tool and 40 small accessories (Fig. 3). The versatile tool, popular with hobbyists, is easily kept in order within the rigid plastic case. What otherwise might have been a serious packaging problem was solved by designing the base of the container with molded recesses for the power tool and its cord, supplemented by a number of small openings into which the shanks of the tiny accessories are inserted to facilitate orderly storage and immediate selection. The integral compartments and openings cannot come loose or wear out.

Several manufacturers of high-quality carving sets and other cutlery have adopted molded plastic containers with compartmented bases to provide a merchandising lift for matched sets of steak knives, etc., and to provide permanent storage for the products in the home. Unusually effective display appeal may be incorporated by using a colored base with a clear transparent cover.

Chas. D. Bridgell, Inc., Crisfield, Md., manufacturer of Carvel Hall cutlery, has developed an outstanding packaging program by using eight types of bases molded in the same basic design, but tailored to accommodate each type of assortment, giving the entire line a distinctive family relationship (Fig. 12). All bases are molded in ivory polystyrene. The covers are clear transparent polystyrene. Sixteen specially designed molds are used for the comprehensive Bridgell packaging program.

Craftsman Power Wood Bits, sold

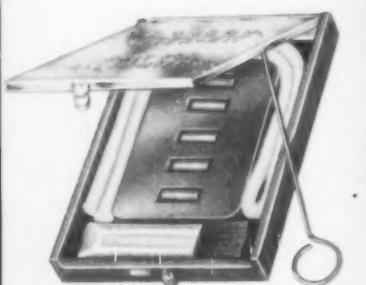


20. BOLD IDENTITY is given Speidel display-gift case for photo-identity bracelet.



21. JEWEL BOXES of transparent polystyrene with styrene-foam platforms are being used for packaging Park & Tilford perfumes.

Personal accessories and cosmetics



22. ISLAND CENTER holds Ronson flints, other items fit surrounding space in kit.



23. MASCARA KITS are attractive and convenient when molded of polystyrene plastic in this two-piece, hinged construction.

by Sears, Roebuck & Co., are packed in slip-cover-type molded polystyrene containers with form-fitting opaque-colored bases and transparent covers (Fig. 11). Specially designed lugs or small partitions molded integrally with the base fit the various sizes of bits, holding them in proper order and shielding them against possible damage or dulling. The molded supports make it easier for the user to keep the bits in order and to select the various sizes.

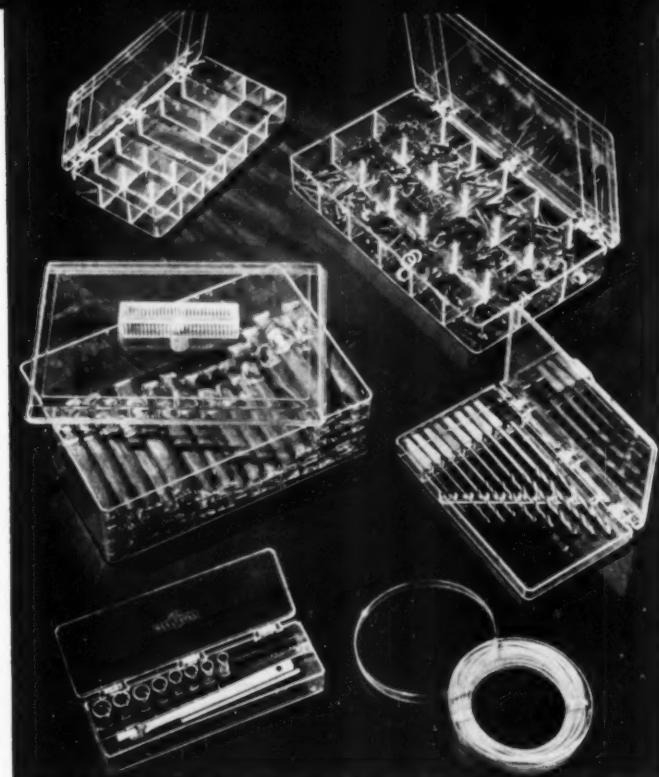
Numerous other hardware products have been placed in molded plastic packages for similar reasons. Evans pocket tape, made by Evans & Co., Elizabeth, N. J., is put in a form-fitting clear transparent cellulose acetate butyrate case, which serves as a show window for the product in dealer displays (Fig. 19).

The Fellows Gear Shaper Co. uses molded cellulose acetate butyrate for an efficient and colorful package for gear cutters. The two-part round package conforms to the shape of the cutter and has a red opaque top which telescopes down over the clear transparent base. The gear cutter, immersed in a protective plastic dip coating prior to shipment, rests securely over a projection molded in the base of the package. Product and manufacturer information are molded into the top of the lid.

Fishing flies and lures, and spools of fishing line are heavy-volume users of plastic packages, molded of both polystyrene and cellulose acetate. Transparent boxes not only show off the merchandise to advantage in the retail outlet, but also make convenient re-use containers for the fisherman.

Delicate electrical components and other types of small, easily damaged or easily lost products are ideally suited to molded plastic packages which protect them and make them easier to handle. The visual aspects of a transparent package can often be enlisted to make the container more functional or enhance the sales features.

A molded polystyrene package used by Electro-Voice, Inc., for phonograph cartridges—delicate electronic components—measures only 2½ in. long (Fig. 15). The package is specially designed to fit all the types of replacement cartridges made by Electro-Voice by means of molded-in mounting studs to which the units are fastened with screws. The cover is



24. STOCK CONTAINERS offer many opportunities for attractive selling units for products ranging from drill and wrench sets to cigars.

transparent. The base is molded in various opaque colors and parts numbers are heat stamped on the base for code identification and inventory control. A special compartment in the bottom section provides space for storing necessary components and hardware, which are locked in place by a small card carrying technical information for installing the cartridges.

With impulse buying so important in the toy and novelty field, many toy manufacturers have specified rigid molded packages to step up the sales appeal of their products.

Polystyrene and cellulose acetate are being used widely for rigid molded compartmented boxes with hinged lids, suitable for small jewelry items as well as nuts, bolts, screws, lock washers and dozens of other different products within the hardware category.

One box, molded of cellulose acetate butyrate, is designed with injection molded partitions which form 17 individual compartments in the base and a snap-tight cover attached with sturdy rustproof hinges. A heavy stock box molded of clear polystyrene, measuring 6½ by 10½ by 1¾ in. in size and weighing slightly more

than a pound, has multiple appeal to craftsmen, sportsmen, housewives and tradesmen. The top, secured in place by means of molded hinges held by brass pins, opens up to a full 180 deg., permitting the cover to be used for sorting and other work. Many dealers make up their own kits of gimmicks and gadgets for this box, using everything ranging from assorted nuts and bolts to fishing bait and fishing tackle.

Another manufacturer, who has long specialized in the molding of plastic containers for hardware items and other types of merchandise, offers a wide variety of transparent boxes with different compartment arrangements. Among the types of products which have been sold in these molded packages are small hardware items, drill sets, wrench sets, cigars and many others.

Personal products, accessories

Outside the jewelry field, there are numerous other personal products, ranging from standard-type razors and electric shavers to sun glasses, hair-cutting combs and desk-type staplers, for which molded plastic containers have proved to be (*This article continued on page 188*)



THOUSANDS PER DAY, the orders for Lever Bros. "Pair-and-Spare" Cannon nylon premium offer pour into Cannon's Albemarle, N. C., mill. No dealer paper work, handling or redemption is required; orders are sent directly to Cannon.

How soap sells hosiery

There are 60,000,000 women in the United States—every one a potential customer for Lever Bros. products.

About 98% of these women purchase an average of 14% pairs of nylon stockings per year, or a total of about 826,000,000 pairs. Competing for this market are something like 700 firms manufacturing nylon stockings. Only the biggest of them have as much as 2% of the total market.

With these statistics in mind, consider what Lever Bros. dramatic new across-the-board "Pair-and-Spare" Cannon hosiery premium offer on Lever packages is doing for Cannon hosiery sales and, in turn, what this quality premium offer—with no dealer paper work, handling or redemptions—is doing for sales of Lever Bros. products.

For more than eight months, hosiery orders accompanied by a dollar and two box tops from packages of Lux Flakes, Breeze, Surf, Silver Dust, Rinso, Rinsō Detergent, Good Luck Margarine or Pepsodent's Shadow Wave Home Permanent have been pouring into Cannon Mills by the thousands every day. For her dollar, the woman gets three matching stockings—"a pair and a spare."

Actual figures, of course, are not disclosed, but estimates in the trade indicate that Lever will sell at least a couple of million additional packages of its products and Cannon, of course, will benefit by corresponding numbers of "Pair-and-Spare." The long-range effect that it will have in creating new brand loyalties is incalculable.

Intensive advertising support through radio, television and Sunday supplements is spearheading the offer, but success is also due to several other factors:

(1) The tie-in of two products of such high frequency of purchase as soap and hosiery—both bearing highly respected brand names.

(2) The double-barreled economy appeal of getting three stockings for the price of two.

(3) The ease with which the activity can be focused on point-of-sale package promotion.

(4) The efficient system which Cannon has set up for the packaging and handling of the orders.

It is a comparatively simple procedure to incorporate the "Pair-and-Spare" offer as the main feature on the back panel of Lever packages, calling attention to the idea of buying stock-

ings three at a time, enabling a woman to "match up" stockings when one goes.

Attractive illustration and quick-paced copy tell how this method of purchasing stockings can save 45% a year on the stocking budget—three regular, top-quality, 51-gauge, 15-denier nylons, valued at \$1.85, for only \$1.

As she picks a carton off the store shelf, the shopper's attention is quickly directed to the offer she may already have heard about on radio or television, or seen in the newspapers.

From the actual package production standpoint, this is all Lever Bros. has to do about it. There are no box tops or coupons for the dealer to worry about, no handling for him. All this is taken care of by Cannon.

At its Albemarle, N. C., plant, Cannon has set up an efficient, economical method of handling the packaging of the hosiery to meet the thousands of orders pouring in with each mail.

First requirement was the selection of a light-weight package to keep down mailing costs. Cannon's regular stocking box was eliminated and the three stockings simply wrapped



BACK PANEL of packages is devoted entirely to hosiery offer. Packages for a dozen or more Lever Bros. products are included in the offer.

by the millions

A unique new box-top joint promotion is turning millions of American women to Lever Bros. products and Cannon hosiery

around a paper backer and placed in a printed cellophane envelope. Strong brand identity is provided by printing the same yellow, maroon and gold color scheme as Cannon's regular stocking boxes with the stylized Cannon motif at the lower right. A tie-in sales message at the bottom reads: "Made by the makers of Cannon towels and sheets." The back of the envelope has directions for the care of Cannon nylon stockings and the suggestion to wash in lukewarm Lux Flakes (another tie-in for Lever). On the flap is the slogan, "Sealed at the mill for your protection." The colorful envelope thus brings right to the consumer stockings identified with a famous brand name.

The backer card is devoted entirely to the Lever "Pair-and-Spare" promotion. One side tells how to order more of the stockings, calls attention to the

savings and describes why Lever Bros. is making this bargain offer—to win new friends for Lever products. There is also a suggestion to tell your best friends about how they, too, can save on their stocking budget by getting the "Pair-and-Spare" with a dollar and box tops. The other side of the card shows illustrations of Lever packages with which the premium stockings are offered and includes a convenient order blank for the "next time you want Cannon nylons."

The cellophane envelope containing the stockings is placed in an unprinted kraft envelope for mailing, rubber stamped on the outside with size and color for ease in making up the orders. Typed labels carrying name and address are affixed as the orders are filled.

Since Cannon has an adequate labor supply in Albemarle, it was not difficult to get sufficient help to handle the mailings. To simplify handling, the offer is limited to two popular shades in all stocking sizes.

One group of workers opens the orders as they come in while another removes the money and audits. Still another group addresses the labels, which designate the size. The color of the label indicates the color of the stockings to be sent. Labels are put on pre-packaged stockings already in the mailing envelope corresponding to the rubber-stamped size and color on the outside of the envelope. Completed, addressed packages are sorted (*This article continued on page 207*)



MAILER PACKAGE for Cannon nylons is comprised of paper backer carrying promotional information, printed cellophane envelope in same design as Cannon hosiery boxes and an unprinted envelope with address label.

MILK-PITCHER CARTON



UNOBSTRUCTED FLOW through new spout eliminates dripping and spilling, permits emptying without jiggling or shaking. First to adopt modified container is Hawthorn-Melody Farms Dairy, Chicago. To reclose package, the pouring spout is simply pushed back to its original position.

Something new in disposable waxed-paper milk containers—a carton having a "built-in" pitcher-style pouring spout which is easy to open and easy to reclose—is making its appearance in the dairy field. With more than 40% of all bottled fresh milk reaching consumers in paper containers, the new dispensing device offers one of the first major improvements in convenience yet introduced for this type of package. In this connection, it is also interesting to note that 80% of all fresh milk sold in stores is already packaged in paper containers and that this development is expanding rapidly in the home-delivery field.

Introduced by one of the major suppliers of waxed-paper milk cartons, the improved-style package is similar in appearance to its predecessor, now being rapidly replaced by the pour-spout version. By early 1954,

complete conversion to the pour-spout-style carton by all present users of this manufacturer's disposable package is expected.

In switching over to the new container, the only modification of packaging-line equipment involves the wire stapling unit which locks the folded top of the gable-style carton after it has been filled. With the new-style carton, the staple, instead of being centered on the top fold, is slightly offset toward one end of the gable, leaving room for the edges to be folded back to form the spout when the package is opened.

In addition to the convenience features of the improved package, as outlined below, the new-type carton affords a slight cost saving on the carton blanks to the dairy, since the cutting and gluing operation required on the opening flap of the earlier-style carton blank is eliminated and slightly



TO OPEN, top edges on pouring-spout side are gripped between thumb and forefinger of each hand. Opening instructions on 1-pt. size Hawthorn-Melody carton are carried on side panel.

Convenient new pouring spout is expected to be on all gable-style paper containers early in 1954

less board is necessary. With the new-type blank, the gluing of the side seam is the only manufacturing operation required on the blank, other than printing, die cutting, creasing and scoring.

Hawthorn-Mellody Farms Dairy, Chicago, whose six-line paper milk-container operation is said to be the largest of such installations under one roof, is among the first dairies in the Chicago area to adopt the new-style disposable package. Initially, this company changed over to the new pour-spout container (from its previous waxed carton) on the 1-pt. package of Hawthorn-Mellody Half & Half, a popular 12% butterfat product used for coffee, cereals, desserts and other products. Before the first of the year, Hawthorn-Mellody is slated to make a complete change-over to this type of package on its full line of fluid-milk

products in four container sizes— $\frac{1}{2}$ pt., $\frac{1}{3}$ qt., 1 pt. and 1 qt. The 2-qt.-size containers, which require two staples on the top closure, are not being changed over to the pitcher-style spout.

All Hawthorn cartons will feature the company's familiar daisy symbol with "fresh from the farm" slogan and different color combinations to facilitate immediate identification of the respective products. For Half & Half, the color combination used is orange and maroon.

The new pouring-spout package, made up from a pre-glued flat blank and set up and wax coated automatically at the dairy prior to filling and sealing, is handled in exactly the same manner as the previous container. The 1-pt. container, for example, is set up, filled and closed at the dairy on automatic equipment at a rate of 60 to

65 cartons per minute. Bottom and side seams are sealed by a vinyl-base adhesive highly resistant to lactic-acid absorption, resulting in a tight, permanent seal. The hot-waxing operation sterilizes the container, seals the surface of the paperboard against leakage and gives the package additional strength and rigidity.

On the New Hawthorn-Mellody cartons, the side panel adjacent to the pouring spout carries printed instructions and a series of four line drawings showing how to open the new pouring spout for convenient dispensing. The first step consists of gripping the side flanges of the gable top, after which the "wings" which form the pouring spout are spread open, breaking the perforated top seal of the package. The flaps are folded all the way back by the pressure of the thumbs and finally forward pressure exerted by the forefingers causes the tucked-in folds to reverse themselves and open up into a roomy, convenient, sanitary pouring spout which eliminates all spilling and dripping. Since the spout offers a completely unob-

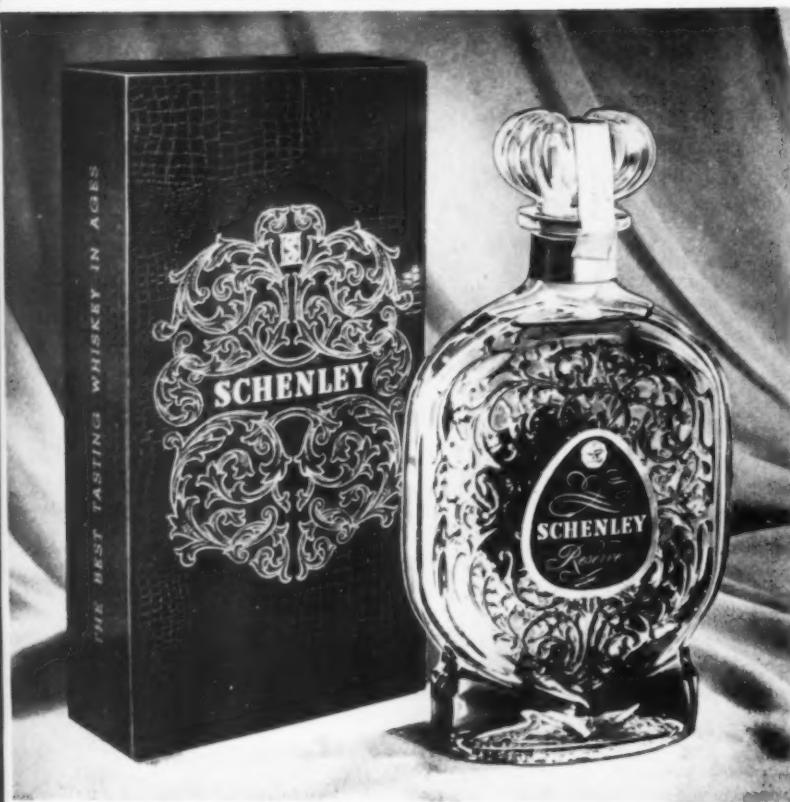
(This article continued on page 209)



PRESSURE by thumbs folds back "wings" of top as perforated fold across top releases, breaking top seal of container. This permits folds forming the sealed pouring spout to reverse themselves.

OFF-CENTERED STAPLING is the only modification to packaging equipment required in change-over to pour-spout cartons. Photo shows line for pint-size, new-style cartons in Hawthorn-Mellody plant, where other lines are being converted to handle new spout cartons for full range of fluid milk products. Line operates at 60 to 65 per min., setting up blanks which are then paraffin coated, filled and closed automatically.





FIRST for popular-priced blends was this decanter and alligator-grain embossed carton for Schenley Reserve. Previously, private-mold glass gift containers were used almost entirely for bonded whiskies.

A PINT DECANTER for Tom Moore bonded bourbon was Barton Distilling's quick answer for merchandising a quality product at a popular gift price.

DECANTER BOOM

Packaging plus is the distillers' stimulant to lagging sales, as elegant decanters move into the hotly competitive low-price blends

The long-expected competitive battle in the liquor industry has broken out in a most unexpected manner.

Instead of cutting prices to move their mounting stocks of whiskies, most of the distillers seem to be holding prices but paring their profit margins to put more money into extra-appealing packaging.

The trend to ever-more-elegant gift cartons, which has been noted in the

last couple of years, continues.* But the striking new trend is in the widespread use of ornamental, private-mold, glass-stoppered gift decanters not only for the more costly bottled-in-bond whiskies, but for lower-priced, mass-market straights and spirit blends—where the competition in the industry is really rugged and

*See "1952 Gift Trends," MODERN PACKAGING, May, 1952, p. 95, and "Holiday Liquor Dress," MODERN PACKAGING, Dec., 1951, p. 114.

the profit margin is relatively slight.

The liquor industry seems definitely to be putting its faith in packaging rather than price. The experiment is well worth watching by makers of other packaged "luxury" products who may also be encountering slow-moving markets these days.

The liquor industry has itself been startled at the rapidity with which the swing to decanters has developed. The significant point is that the practice has broken out of the \$6.50-\$7 bottled-in-bond class, to which it had always previously been restricted, and in moving into the \$4.50-and-less blends—the real breadwinners of the industry—has created a challenge to every distiller, large or small. All are faced with the problem of matching, in some way, the "plus" value of a competitor's decanter.

And even in the bonded category, where competition has been on a relatively genteel basis, a challenge has been flung by little Barton Distilling Co., which has departed from the long-standing practice of fifth-size decanters and introduced a most attractive, elegantly cartoned pint-size decanter of Tom Moore bonded bourbon to sell for \$3.95 or less—apparently the lowest price on any decanter package, bonded or blend.

On the other hand, Melrose Distillers, Inc., which has Melrose Rare



KING-SIZE decanter for a full quart of Melrose Rare blended whiskey is another indication of the bid distillers are making for lower-priced gift sales.

as one of the new entries in the decanter-packaged spirit-blend field, has trumped its competitor's ace by going to a full-quart size which, selling for around \$6, tops all competitors as to quantity and undercuts the bonded field as to price.

Since Glenmore Distilleries, a comparatively small firm, proved the sales effectiveness of the decanter with its promotion of its Kentucky Tavern decanter just before World War II—a practice it revived immediately after wartime glass restrictions were lifted—more and more decanters have been seen each year among the bonded whiskies, particularly bourbons. There was a nice little rivalry in this field—but nothing outside it.

This fall the straw in the wind was Schenley's announcement of a handsome new gift decanter containing popular-priced Schenley Reserve whiskey—a spirit blend—to sell for around \$4.50, New York price. And whereas distillers have usually thought of decanters in terms of hundreds of thousands, Schenley ordered a million and a half cases of decanters produced by eight container manufacturers and a team of closure firms.

In addition to Schenley and Melrose Rare, there are new decanter packages for straights such as Old Charter and Park & Tilford's Private Stock. And the approaching holiday

season may see a lot more of them.

According to Oscar Getz, president of Barton Distilling Co., the \$3.95 Tom Moore pint decanter was created after research showed that spirits are among the top two or three most popular gift items. Vast numbers of people, he believes, want to give liquor as a gift but have found the price for really attractive gift packages beyond their reach.

On the other hand, Seagram Distillers, biggest in the industry, use no decanters for any of their American brands. The reason given by Seagram is the company's present enviable position in the industry—sales the highest ever and earnings next to the highest on company record. Seagram, according to a company spokesman, has not been caught in the sales slowdown affecting some companies and, as the company is having no problem in selling, it has not felt it necessary to incur the high cost of ornamental containers.

But Glenmore and Brown-Forman, leading users of decanters in the bonded-bourbon field, report substantially increased sales as the result of the gift appeal. Recipients of gift decanters, they say, come back for additional purchases of the same brand in regular packages and often become regular users.

The decanter is considered a premium, prestige package by all firms, of course. Usually a decanter costs from two to four times as much as a

conventional bottle. Costs must be absorbed as part of the advertising and promotional budget, the same as sampling would be, since liquor in a decanter usually is sold at the same price as the regular bottle.

The Tom Moore people say they won't make much of a profit on their beautiful pint decanter this year, despite favorable trade reaction, but it's worth the effort because of what the package is doing to distribution. Dealer and jobber enthusiasm has enabled the company to widen distribution, particularly in major markets where it has previously had only a limited number of outlets.

Barton has made the most of its Tom Moore pint. The decanter might be described as a square-shaped banjo, broad and thin, so that it presents a maximum of front surface. The glass is molded with hobnails in reverse—small, round depressions which catch the light and heighten the illusion of cut glass. The rich black folding carton which contains it has almost a full-size acetate window and a back surface of gold-colored foil which reflects the bottle like a mirror, creating a feeling of greater depth. A diagonally placed red "ribbon" of plastic tape across the upper right-hand corner adds a dramatic touch. A heavy foil "bourbon" nameplate hangs around the neck from a gold-colored cord and fits into a depression designed for it. To top it all off, there is a combined jigger glass

SHAKER-DECANTER for Beam bourbon has a double gold-sprayed threaded cap on small opening for pouring, a wide mouth for re-use as cocktail shaker, ACL in 22-karat gold.



RIGID ACETATE box, shown here with possibilities for re-use as a convenient container for golf balls and golf tees, is the exclusive feature Glenmore Distilleries is pushing this year to house its current Kentucky Tavern glass-stoppered decanter.



PHOTO: ADHESIVE PRODUCTS CORP.



NEW ADHESIVES for affixing corks to threaded or barbed studs on glass stoppers provide better opportunity for using glass stoppers as the primary seal. Adhesive is wiped inside the cork.



**Stoppers
can now be
closures**

their bonded lines. And, as frequently happens in packaging, the big firms are following the lead of the little ones to protect their markets.

More practicability

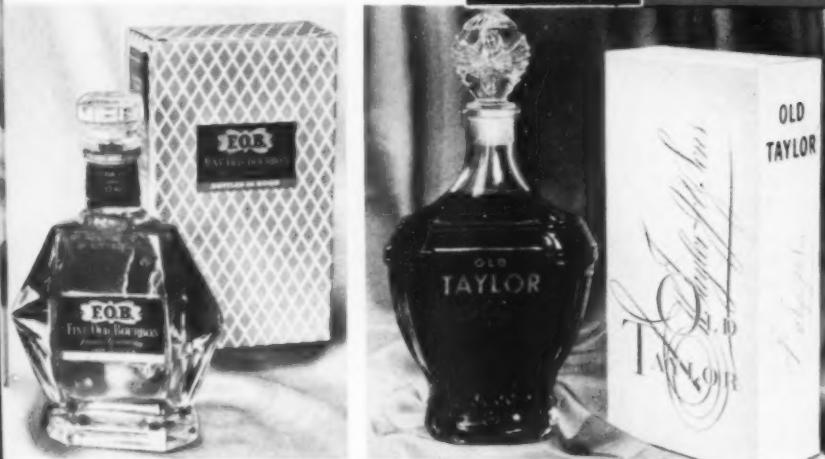
There have been developments, too, making the decanter more practical as a package. Glass designers have brought forth new ingenuity in giving a rich, cut-glass effect to decanters that can still be economically machine molded like bottles. And one of the significant steps is the development of adhesives that will bond cork to glass, permitting the decanter-style glass stopper to be used as the primary closure, rather than being expensively tied to the neck of the decanter as an accessory.

The advantages of this procedure are obvious. It eliminates the necessity and expense of an extra wood-topped cork for the primary closure. It gives the decanter a more attractive appearance at point of sale to have the glass stopper originally seated in the neck of the bottle.

It is said to be possible to obtain a satisfactory leakproof closure by the use of a glass stopper fitted into a cork by means of a threaded or barbed stud. However, without the additional protection of an adhesive, the user, in opening the bottle, is very apt to pull the glass loose from the cork without removing the cork from the bottle. The new adhesives are said to prevent this. The formulas used are water-dispersion, resin-base adhesives said to be non-toxic, unaffected by alcohol and so constituted that they do not contaminate or affect the clarity of the product. One manufacturer of such an adhesive reports that it has withstood the "oxygen bomb test," representing exposure to oxygen at 300 lbs. pressure per sq. in. at temperatures of 158 deg. F. for a week—an accelerated test approximating more than a year's aging.

Among the firms now using adhesives for affixing cork collars to glass stoppers are Brown-Forman for Old Forester bourbon and National Distillers for Old Grand Dad and Old Taylor bonded bourbons, both selling in New York for \$6.59. Brown-Forman is credited with being the first to achieve this kind of a closure and was also first to use a decanter with a projecting handle in a mass-production operation.

Kentucky Tavern, Hiram Walker and James E. Pepper are among other



EXAMPLES of corks affixed with adhesives to glass stoppers used as primary closures for decanters are the assemblies used for Canada Dry's F.O.B. Bourbon and by National Distillers for Old Taylor.



WOOD-TOPPED cork as the primary closure with glass stopper tied to neck of bottle has been traditional procedure for assuring efficient seal as shown for this newly improved square decanter currently used for Park & Tilford Private Stock. Bottle is reproduced on the carton.

and reclosure sealed by a cellulose band to the cork-stoppered top of the bottle.

Tom Moore also makes a pitch for the luxury market with a "twin" package containing two of the 16-oz. decanters, thus providing a full quart of Kentucky bonded bourbon at the same level as that for conventional fifth decanters.

There are two schools of thought as to how long the decanter boom will continue. Some firms believe there is a place for a year-round decanter gift package and are already packing one or two of the gift decanters in a case with standard fifths. Others feel it is a holiday promotion only and should be regarded principally as a means of brand sampling to win new brand loyalties. Still others in the industry feel that if the trend goes too far, the decanters will lose the entire effect of novelty and thus reach a peak that will be followed by a decline in popularity.

In the meantime, the rush is on. An increasing number of the smaller distillers are now using decanters for

brands now using the glass stopper as the original closure. The Schenley closure is a cork with a threaded glass stopper screwed into the cork, with no adhesive but with the assembly held in place by a polyethylene "washer" around the neck of the decanter. Some companies use a shrink-type cellulose-band around the necks of the decanters to hold the closure and to hold the revenue stamp in place.

Another trend, as noted on the Tom Moore and Melrose decanters, is to design the glass stopper so that it may also be used as a jigger measure. The Tom Moore jigger-stopper is made like a hollow cup with threaded stem which screws into the cork. A scored piece of paperboard inserted in the opening keeps the revenue stamp, placed over the top, from collapsing. A cellulose band holds the revenue stamp in place. In other instances the decanter may be sealed with a wood-topped cork and an inverted glass jigger-stopper secured to the decanter by a cellulose band. The revenue stamp in some cases is attached over the wood-topped cork so that it shows through the glass stopper.

The most careful attention must be given to the design of a decanter. In general the more ornamentation used, the more expensive the container. As the designer for one of the leading glass manufacturers puts it, the ideal proportion of a blown-glass container is that of a soap bubble. The farther a container deviates from that shape, the more difficult it becomes to make. Excessive ornamentation in the mold offers more problems to achieve uniformity in the containers produced, takes more production time and requires larger quantities of glass—all factors which add to cost. Unlike standard glass containers, for which glass companies have spent many millions in perfecting lighter weights, the decanter bottles are produced more efficiently in heavier weights, thus using more glass and also slowing up production time.

Another cost factor is the glass stopper, which must be produced separately from the container but in the same manner as a glass-blown bottle. A decanter with glass stopper is thus the same as making two separate containers, requiring two separate molds.

In the design of a stopper, the distiller must take into consideration the placement of the revenue stamp. Some

very beautiful decanters have proved impractical because, after completion, the distiller found it too difficult to affix the mandatory revenue stamp. At best, this must be a hand or semi-automatic operation on decanter bottles, which also adds to costs. The Schenley stopper is planned with a flat indentation across the top, over which the revenue stamp may be neatly adhered and held in place by the polyethylene washer.

With competition becoming keener for more distinctive designs, practically every known shape and style of glass container has been used. Many are adaptations of famous antique glass that go back as far as Grecian vases. Others are inspired by the baroque and roccoco designs of the 17th and 18th centuries. Some decanters have been inspired by Early American glass, such as the current decanter used by Hiram Walker. It must always be remembered that costs are related to the degree of intricacy of the design and the difficulty of producing it on modern glass-making machinery.

To give an idea how high decanter costs can go, a fine, hand-cut French Baccarat crystal decanter used as a package for Martell Cordon Argent

liqueur cognac, distributed by Park & Tilford, is said actually to cost between \$20 and \$25, for a package retailing at \$35.

One of the most unusual designs of the year is a shaker-decanter, adopted by James B. Beam Distilling Co. for Beam bonded bourbon, which may be used as a cocktail shaker. The container, with baroque ornamentation, is tapered like a cocktail shaker and has a wide mouth. It is closed by means of a double screw cap molded of phenolic plastic, metallized by spraying by the vapor process. The larger of the screw caps fits over the mouth of the shaker. A threaded orifice in the larger cap, for pouring, is covered and sealed by a smaller screw cap. Applied color labeling (ACL) is in 22-karat gold. This decanter has been so successful that the company has been pulling the throttle down on publicity, for fear of being unable to supply the demand.

Generally, the decanter promotions have been accompanied by extensive newspaper and magazine advertising.

With all of the attention to decanters, the gift carton is certainly not being neglected. Each decanter requires a carton and the impression of elegance must be carried through. In

PEOPLE'S CHOICE for Old Grand Dad decanter was selected from hundreds of designs finally narrowed down to a dozen or so sketches shown to consumers and retailers. Allan MacDougall, assistant general sales manager of National Distillers, is shown with a group of the sketches.



fact, with so many decanters to choose from, the carton may easily be the basis of choice.

The carton for the new Schenley Reserve decanter is all-over embossed to simulate rich maroon alligator leather, with a modification of the decanter ornamentation reproduced in gold ink on the carton and the name Schenley in reverse white.

Glenmore also has another first this year—a transparent rigid acetate container to show off its new Kentucky Tavern decanter. The transparent container is suggested for re-use to store golf balls, tees or whatever you like.

The Tom Moore carton, as previously described, is outstanding. But undoubtedly the most ambitious of all 1953 gift cartoning is that adopted by Brown-Forman Distillers for its Old Forester decanter, as well as its regular fifths of Early Times. These cartons are a part of Brown-Forman's \$5,000,000 advertising campaign this year.

Both of these cartons have exterior applied decoration, which the company calls its three-dimensional packaging or "Decorama." An entire production and assembly line had to be set up to handle this added decoration, as well as a method of packaging the decorative pieces for the trip from supplier to production line.

The 3-D decoration on the Old Forester carton consists of a hand-made, fuchsia-colored, aluminum-foil-covered piece in the shape of the shield dotted with gold stars, encircled with tinsel and topped with a metallic-ribbon bow. The Early Times carton is decorated with a die-cut and printed paperboard clock, flecked with multi-colored sequins and standing out in relief from a gold-colored slotted piece of paperboard to which the clock cut-out is glued. The slotted paperboard fits into die-cut openings in the carton. In both cases, the decoration must be secured to the carton by stapling.

The production requirements are most unusual and indicate the importance that the distilling industry is attaching to really distinctive packaging. Special stapling machines had to be designed and built by Brown-Forman engineers, as no existing stapler on the market was set up to affix the ornaments from the inside of the carton without damaging the ornaments. No less than 14 of these semi-automatic, air-operated stapling machines are required for the line. Whole new conveyor systems had to be set up.

A special shipping box was designed for protecting the ornaments during shipment from the supplier to the Louisville distiller by packing the

ornaments on corrugated-paper trays and fastening them securely with loops of double-faced adhesive tape. The tape loops acted as springs to allow the ornament to "float" during shipment. Before being put into use, 40 of the mailing boxes were test shipped by various types of transportation to determine the efficiency of the shipping unit.

After being set up and stapled, the decorated gift boxes are placed on a specially installed storage-type trolley conveyor. This conveyor is planned so that, in the event the bottling line is shut down due to mechanical failure, the stapling process continues with the assembled gift cartons stored on the conveyor.

The conveyor carries the assembled gift boxes to a point on the line where they are packed into corrugated shipping cases ready to receive the decanters or bottles, 12 empty gift cartons to the case. Two conveyors, one carrying the corrugated case packed with gift boxes and the other carrying filled decanters, converge. The decanters are removed from the bottling line and placed in the gift cartons within the master shipping case. As the cases move along, the flaps of the gift boxes are closed and two U-shaped paperboard separators are inserted in the case to protect (*This article continued on page 186*)

Old Forester 'Decorama' carton demands special production line.



THREE-DIMENSIONAL decoration on Old Forester carton consists of fuchsia-colored aluminum foil-covered paperboard shield, dotted with stars, rimmed with tinsel, topped with metallic ribbon bow. Trolley conveyor (right) carries decorated boxes to point where they are placed 12 to master carton ready to receive filled decanters. Conveyor is such that if bottling is forced to shut down for any reason, stapling may continue with completed boxes stored on the conveyor.

CARRY-HOME MOTOR OIL



MACHINE-PACKED carry-home carton for six cans of oil is produced at high speed, is low in cost and saves board. Cans cannot shift or slide out.

Sears' economical 6-can carton offers selling advantages and is first in this growing field to be machine packed



CONVENIENT STACKING is provided for mass displays because of flat top and folding handle. Construction permits full view of cans on shelf.

Until some one comes up with an animated package which will walk home beside you, the carry-home carton appears to be the best answer to multiple-unit sales for many types of products.

The merchandising magic of carry-home cartons has been demonstrated for a range of products from beer and soft drinks to fruit juices, household cleansers, bar soap and canned dog food. Such cartons offer the consumer the price advantage inherent in a multiple-unit sale and the additional feature of carrying convenience—a particularly important point with heavy or bulky items which are awkward to carry separately. Furthermore, once the merchandise has been taken home, the carton affords compact storage for the unit containers until ready to be discarded.

Retailers have come to appreciate the virtues of the carry-home carton. In an age when personal selling—in many types of business, at least—is practically non-existent, the built-in sales appeal of a good carry-home container can become a potent merchandising factor. When properly designed, the cartons constitute an ex-

cellent unit for building mass displays in the store, affording much more effective surfaces for sales copy than the individual packages alone. And last, but not least, carry-home containers expedite retail selling operations by eliminating the need of further wrapping or packaging. The customer simply picks up the container, pays for it and is on his way without delay.

Carry-home containers for canned motor oil have been around for some time. In the past, however, most of

them have been packed manually, creating a disadvantageous cost problem. Many of them have shown certain structural limitations, such as an inability to be stacked conveniently in mass display.

Several months ago, Sears, Roebuck & Co., which sells millions of quarts of oil annually under its Allstate private brand name, began using a new type of 6-qt. carry-home carton which combines several interesting advantages. This container, which may be packed either manu-

ally or on semi-automatic equipment, has proved to be considerably more economical than previous types of carry-home cartons. It is also designed with a flat top and a folding handle more adaptable to mass displays, since it can be stacked several feet high if desired. The new Sears containers are said to mark the first appearance of machine-packed, carry-home cartons for motor oil.

Consumers like the new Sears carton because it is designed so that the cans do not work loose and rattle around if the oil is carried in the luggage compartment of the car. With its flat shape and minimum height—the same as that of a can of oil—the container does not take up excessive storage space. Sears retail-store personnel like the new cartons because they do not have to spend valuable sales time setting up the cartons and placing the cans in them. The pre-packed containers are delivered to the retail outlets and service stations packed four complete sales units to a corrugated shipper. Both sales personnel and consumers have also found that the 6-qt. sales unit is conveniently scaled to the average car.

Due to efficient use of paperboard and the fact that the cartons can be packed at relatively high speed on specially developed semi-automatic equipment, the total cost of the new container (including material and labor) is only about half as much as

another style of carry-home container in use by the company. Packed by hand, this unit holds 5 qts. of oil instead of six—three placed upright and two horizontally across the top—and has a gable top unsuited to stacking.

At present, Sears is using the new-type package in many parts of the country and expects to have it in national distribution early in 1954. At three locations, the new container is being handled on semi-automatic equipment, while at a number of other points where Allstate motor oil is packaged, the containers are now being applied manually. Equipment is being developed for fully automatic application of the carry-home containers, at much faster production rates, and Sears may eventually change over to this type of equipment if circumstances justify it.

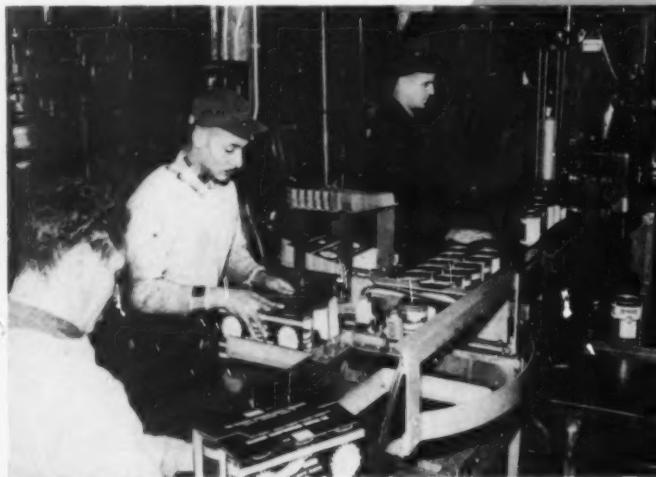
Currently, Sears, Roebuck is using the new-type carry-home containers in two basic colors—white and blue—for consumer sales units of Allstate motor oil. The regular dark-blue carton, set off by red horizontal bands at the top and bottom and white lettering, is used for the Allstate Compounded Heavy Duty motor oil in the usual SAE viscosity grades. The distinctive white cartons, printed in red and blue, are being used for seasonal promotion of the special new Allstate winter grade (5W-20) motor oil, a premium product tailored to meet a wide range of winter driving condi-

tions. Both cartons are identical in construction and sales copy is similar on each, except for variations to fit the seasonal advantages of the different types of oil. The white container matches the color of an Allstate anti-freeze can with which it is being teamed up in winter sales-promotion programs, window displays, etc.

Construction-wise, the new Sears motor-oil carrier consists of an open-end sleeve made by joining two pieces of heavy-duty 0.034 bleached sulphate kraft-back board at the top and bottom. The bottom joint is not made until the blank is actually wrapped around the six cans at the packaging plant, forming the finished unit. The complete carton blank, measuring approximately 12 in. wide by 28 $\frac{1}{2}$ in. long, is shipped to the plant folded in half at the top, occupying relatively little space in transit or storage. The manufacturer's glued joint is located at the top, where three flaps overlap to provide sturdy construction. The finger-notched carrying handle consists of two thicknesses of board where the halves of the blank come together. The container when loaded must support a weight of about 12 lbs.

Each side of the container has three die-cut slots at both top and bottom, shaped to coincide with the arc of the can tops and bottoms. When the blank is wrapped around the quart cans, the individual com-

Carriers are applied



CARTONING UNIT is adjacent to quart-can filling and closing machine. Application is performed by four horizontal arms on turntable which rotates by quarter-turns at successive stages. Each arm terminates in a tray-like end that holds cans in position.



SIX CANS move into open end of arm toward conveyor; gate blocks further flow till next cycle begins. Tripping foot pedal causes arm with six cans to move, positioning pre-glued blank over cans.

tainers project slightly through these slots to lock the cans firmly in place so that they do not shift or slide out the open ends of the carrier. The handle, formed as an integral part of each half of the carton blank, normally lies flat across the top of the package unless raised for carrying.

Operations at the Chicago plant where Allstate motor oil is canned for one of Sears' major sales areas illustrate how the new carry-home container is handled on a semi-automatic basis. At this plant, the unit which applies the cartons is located at the end of a short conveyor line just beyond the can-closing unit, which in turn stands in close proximity to a six-spout filling machine. As the cans are automatically filled and closed, they move directly to the cartoning unit, separated into two adjacent lines by a partition centered in the conveyor.

The cartoning unit consists essentially of four horizontal arms comprising a turntable which rotates by quarter-turns at successive stages of the packaging operation. Each arm terminates in a tray-like end which holds six cans in the exact position they will occupy in the finished package. As the filled and capped cans move into the open end of the turntable arm facing the can-closing machine, a gate closes automatically, leaving six cans in place and blocking the flow of cans until the succeeding

arm reaches the same loading position.

An operator stands beside the machine at right angles to the conveyor so that the cans approach the unit from his left. When the turntable arm is loaded with six cans, he trips a foot switch, causing the turntable to rotate counter-clockwise in a one-fourth turn and stop with the cans directly before him. At the same time, the machine applies adhesive to the flaps of the carton blank at the bottom of the carton magazine, directly to the left of the operator, and ejects the pre-glued blank so that the operator can apply it to the cans. Opening the blank outward with the carrying handle at the top, the operator lowers it into position over the six cans, pressing it down firmly so that the die-cut notches fall in position over the can edges. As the blank is placed over the cans, the lower edges project through an opening in the table beneath the turntable arm, where folding arms bend them upward to form the bottom of the package.

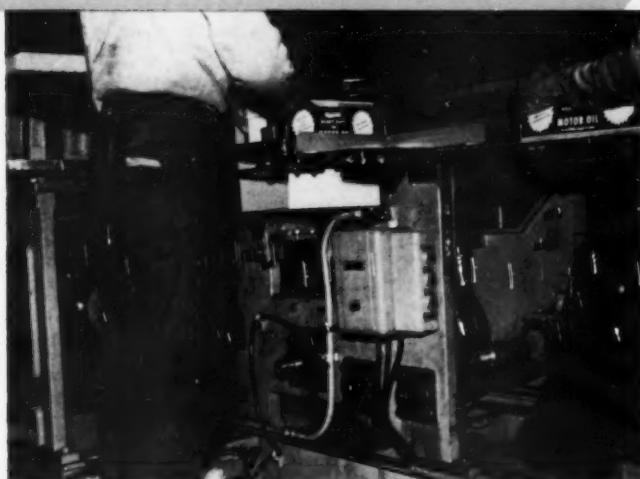
As the operator trips the foot pedal again, the bottom flaps are automatically turned upward and sealed beneath the bottom of the cans and the mandrel arm is rotated a quarter-turn to the next operator, who slides the open-ended package off the arm and brings it to rest on the table surface. The pressure of the cans on the bottom of the package helps to form

a secure glued seam where the flaps overlap. This operator pushes each finished package onto a roller conveyor, where another man rubber stamps the SAE viscosity designation in a space provided on the top of each carrier and manually loads four carriers into the corrugated shippers, which are the same containers in which the empty 1-qt. cans are delivered to the petroleum plant. The final operator on the line manually glue seals the flaps of the shipping containers and stacks them in the warehouse area, ready to be picked up and delivered by truck to Sears retail outlets.

With each quarter-turn of the four-armed turntable, the packing cycle is repeated. New cans enter one section of the turntable while the container is being applied at the "9 o'clock" position and a completed package is being slid off the turntable at the "6 o'clock" position. Each arm is empty from this point until it again reaches the "noon" location, again in line with the conveyor delivering sealed cans from the closing machine.

CREDITS: *Da-Cam-Pak carry-home containers, Old Dominion Box Co., Inc., Charlotte, N. C. Semi-automatic machine for applying containers, Dacam Corp., Charlotte, N. C. Filling machine for quart cans of oil, Elgin Mfg. Co., 200 Brook St., Elgin, Ill. Quart cans and can-closing machine, Continental Can Co., Inc., 110 E. 42 St., New York 17.*

on rotating turntable



FLAPS EXTEND beneath turntable. When foot switch is tripped, folding arms lift flaps upward and seal them. At right, finished packages are slid off the preceding mandrel arm of the turntable. Blanks are fed from magazine at the left.



FINISHED CARRIERS are placed in units of four in corrugated shipper by operator who also rubber stamps viscosity number on top of each carton. Shipping cases are sealed ready for shipment at end of line.

Packaging's Hall of Fame®



FIFTY-NINTH OF A SERIES

In the entire cigar industry there is no brand that better exemplifies consistent, long-term brand promotion and packaging-merchandising leadership than Robt. Burns. Its story when compared with those of the other 58 products nominated to *Packaging's Hall of Fame* in MODERN PACKAGING magazine is unique, for the packaging of cigars is one of the oldest standard types of packaging in the United States. Moreover, tradition, Government regulations and concentrated emphasis on appeal to an all-male market have played a strange and at times complicating role in shaping cigar-packaging practices and progress.

Perhaps no other field—not even liquors—has found its packaging so

restricted by a heritage of hand craftsmanship, prescribed container forms and sizes, and the long-lingering peculiarities of its volume and market. Because of the problems thus incurred in the cigar industry, the accomplishments, techniques and merchandising skills credited to Robt. Burns have special significance for those who are concerned with the relationship between packaging and merchandising leadership.

Robt. Burns Cigars have been sold in the United States for more than 100 years. They have been manufactured domestically since 1857 and the trademark, registered with the U.S. Patent Office in 1865, is one of the earliest cigar brand registries of record. It is the oldest brand name continuously applied to cigars.

Robt. Burns was an early user of the individual cigar band and a pioneer user of foil wrapping. Although not the first to use cellophane, Robt. Burns was among the first of the big brands to adopt this protective material that is now standard not only for cigars but for other tobacco products as well. And it was the general adoption of cellophane by the tobacco industry that put the new-born cellophane industry on its feet some 28 years ago.

The General Cigar Co., makers of Robt. Burns, White Owls and Van Dyck cigars, was first in the cigar industry to use a one-piece wrap for covering the complete cigar box in one machine operation. The three-piece wrap, developed in 1930 in cooperation with box suppliers, greatly contributed to the uniform appearance and attractiveness of the cigar box and helped solve a serious shortage problem when skilled labor required for the hand pasting of the six to eight individual label pieces

became scarce. The three-piece box wrap is now widely used.

The General Cigar Co. pioneered the introduction of the standard panatela shape in the high-grade field and has promoted it continuously with national advertising on an extensive scale since 1922, when this Robt. Burns size was first marketed.

Not only does the Robt. Burns Panatela de Luxe, illustrated on our cover, enjoy outstanding sales leadership in its class nationally, but it appears safe to assume it outsells all other high-grade panatelas combined. In a field that historically has inclined to sectional marketing, Robt. Burns is one of the three or four brands that can truly be called national in their sales distribution.

Advertising has played its part. The advertising of Robt. Burns goes back to at least 1885, making it the oldest and most consistently advertised cigar brand on the market. The quality and dignity of the advertising messages have been a credit not only to the brand but to the industry as a whole, for they have been singularly devoted to but one theme—good tobacco and cigar enjoyment.

Always an important innovator of cigar shapes and special packs, General Cigar is currently winning new recognition for its Christmas "Blessed Event" and other special-occasion packages, as well as for its supermarket merchandising fixtures, which must be considered important new sales beachheads for cigars.

Perhaps in no other field have labeling, brand name and package-recognition factors been more important than in the merchandising of cigars. Robt. Burns is deservedly famous for its brand name, trademark, package features and (along with White Owls) merits special recognition for the skill-



PORTRAIT of Robert Burns, famous Scottish poet, was chosen for a trademark in the 1840s by John Straiton, the originator of Robt. Burns Cigars.

Robt. Burns

CIGARS

NOMINATED TO PACKAGING'S HALL OF FAME BECAUSE:

- Oldest cigar brand, it has for more than 100 years been a sales leader in the quality class.
- In a field noted for hidebound tradition, it helped pioneer use of foil, five-packs, cellophane and three-piece box wraps.
- It has provided proof of the power of brand and trademark promotion in national distribution.
- Its resourcefulness in manufacturing, packaging and merchandising now points the way to even broader markets for cigars.

ful and resourceful use it has made of store-door decals. As will be pointed out later, these factors have been extremely influential in maintaining the long and unsurpassed popularity of the brand.

The early days

Back in the early 1840s in New York, a passer-by on Beaver St. would have seen a sign, "John Straiton, Importer of Cigars," and on the west end of the shop's window another sign: "Robt. Burns Cigars."

John Straiton, owner of the shop and sole owner of the brand, was born in Scotland, a fact that makes his choice of the name Robt. Burns readily understandable. The trademark Straiton chose for his brand was based on a famous portrait of the Scottish poet painted by Alexander Naismith in 1787. Except for slight changes in color and in the art rendering for reproduction, the trademark has remained unchanged to this day.

The Robt. Burns name, because of its shortness, easy recognition, subtle suggestion of a glowing ash and traditional thriftiness associated with the Scotch, was an excellent choice. Together with the pleasant, timeless appearance of the trademark, the name identified the cigar with a cultural prestige and was well conceived to make a friendly appeal to the man who would like a quality cigar in popular shapes at reasonable prices.

The first Robt. Burns cigars were made in Cuba and were imported in five sizes: Conchos Finos, Conchas Regalias, Londres Grandes, Londres Chicos and Brevas Finos. Four of the sizes were packed in wooden boxes, all in 100s. The boxes had white edgings and were white lined. The label appeared much as it does today, ex-



TODAY'S PACKAGE has a label basically the same as that adopted more than a century ago. Three-piece box wrap applied automatically and cellophane cigar wraps combine modern techniques with traditional dignity.

cept that it was printed in black ink. A Robt. Burns facsimile signature was printed on the top of the box and on the front. Size identification was stenciled on the bottom of the box in colors that also indicated the cigar leaf-wrapper shade, which ranged from Colorado to Oscura. The latter designated a coal-black cigar. The cheapest size, the Londres Chico, was packed 25 cigars to a bundle—wrapped in yellow paper, tied with a piece of string and packed 500 bundles to a barrel.

John Straiton, in 1852, engaged the house of Schmitt & Storm to manufacture Robt. Burns cigars in the latter's Pearl St. shop. To distinguish the domestic product from the imported, the edging on the cigar boxes was

changed to yellow. The label was also printed in yellow and included a pattern of thistles—the traditional emblem of Scotland. This label, like the trademark, has remained essentially unchanged in all the years since.

Today's packager might well ask, "Why has this label stood so well the test of time?" The answer lies in the character, appropriateness and pleasant simplicity of the original creation. A comparison with other famous tobacco trade names and labels shows that many of the most successful brands have identified themselves with the names of famous personages. The suggestions of a connoisseur's delight, of age and genuineness have been prized. These qualities have proved the most reliable merchandis-



FIFTY YEARS of labeling Robt. Burns Cigars have required few changes. Realistic appearance, suggesting genuineness, and Scottish emblem of thistles, suggesting thrift, were well conceived for appeal to men smokers.



DESIGN EVOLUTION. Bands, developed for cigars as the ideal means of identifying individual smokes, established a label type since adopted successfully for products ranging from tooth-brush tubes to hot dogs.

ing assets for tobacco—just as they have for liquors and other products sold mainly on the basis of connoisseur quality.

In this connection it is interesting to note that many cigar labels—particularly during the era when beer halls and saloons were one of the biggest outlets for cigars—were designed not for dignity and simplicity, but for florid sensationalism. Rococo designs,

semi-nudes and vibrant colors ran riot. The El Duelo cigar-box label, for example, showed two maidens, voluminous skirts flowing and breasts bared, parrying with the cruel steel. Gold embossed and as gaudily colored as any two-bit valentine of the hearts-and-flowers era, cigar-box art of this type has in later years made interesting collector's material. By way of contrast, no one has to search in a museum for Robt. Burns.

As previously mentioned, domestic manufacture of Robt. Burns cigars was started in the early '50s. In 1857 the Government placed an import duty on cigars and this tariff signaled the birth of the cigar-manufacturing industry in the United States centering around Tampa, Fla. Previously, practically all cigars had been imported.

As a result of the new tariff, Stratton, the Robt. Burns importer, merged with Storm, the manufacturer, to produce and sell Robt. Burns cigars to small jobbers, wholesale grocers and various high-grade retail outlets. The domestically produced Robt. Burns, like the product formerly imported, was strictly a quality cigar. It was of course made by hand. Imported tobacco was used.

Volume expanded rapidly. A new jobber, R. C. Brown & Co., employ-

ing 14 salesmen, was engaged to sell and feature Robt. Burns throughout the South, East and as far West as Indiana. Hotels, clubs, restaurants and other quality outlets carried the brand and the 10-cent size was the leading seller.

Salesmen at first depended on the good will of dealers and clerks to push the brand. A new note was added in 1885, when the first advertisement, a small showcard displaying a facsimile of the Robt. Burns box, was lithographed and distributed to dealers. From that time forward, advertising promotion expanded rapidly. In the early 1900s a giant Robt. Burns billboard was one of the familiar landmarks of New York and in 1914 the first national ad campaign was inaugurated.

Meanwhile, the firm of Stratton & Storm was absorbed, in 1898, by Kerbs, Wertheim & Schiffer. This firm was later consolidated with Hirschhorn & Mack Co. to form United Cigar Manufacturers, which in 1917 became General Cigar Co., Inc. A year later under a new policy, the General Cigar Co. dropped all but five of 150 brands under its control. Robt. Burns, because of its already established leadership, was naturally one of the five brands selected for national promotion.

Packaging developments

The traditional package for cigars has been the familiar wooden box with a paper-hinged lid. In the early days, the boxes were made from Mexican cedar. Today many are made of pulp-board with or without wood facsimile covering. From 1862 to 1898 Federal regulations were in force prescribing the type of container and the number of cigars per package. In essence these regulations restricted the cigar packager to the use of wooden boxes of 25s, 50s and 100s, and pocket packs of threes, fives and 10s, unless special approval was obtained. The purpose was to facilitate control of tax stamps. These rules still govern the packaging of cigars and have had, of course, a very strong influence on the choice of container and on marketing practices as well.¹

The regulations detailing the type of container and the number of cigars

¹ The Cigar Mfrs. Assn. now has pending before the House Ways and Means Committee a proposal that would eliminate the tax revenue stamp in favor of a tax collected on total sales. This would give manufacturers, for the first time, complete freedom to employ modern materials and package forms and to package any size needed for any type of market.

in a box were written at a time when the cigar business was almost entirely local. The average establishment consisted of a back-room workshop and a front-room retail store. Revenue stamps had to be affixed before the cigars were moved from the back room to the front. In the early days there were 27,000 cigar-manufacturing establishments. Now there are about 1,300 and, of these, fewer than 12 firms account for the great bulk of the cigars produced.

Another factor that has influenced cigar packaging has been the custom of using hand labor in the manufacture of the cigar itself. This tended to make the demand for high-speed packaging lines less pressing. The automatic cigar-manufacturing machine was not invented until 1917 and was not in general use for at least another 10 years. Some Robt. Burns shapes and sizes were entirely hand made as recently as four years ago.

However, automatic packaging operations outpaced manufacturing processes. The first banding machines appeared in 1920 and cellophane wrapping machines were in use after 1930.

Package requirements

In addition to the Federal regulations and the problems inherited from a system involving many small businesses and highly skilled labor, cigar packaging makes numerous other exacting demands. The retail outlets—consisting of tobacco shops, chain stores, hotels, news stands and the like—have until recently been a standard, specialized market. A principal factor in such outlets has been the need for a cigar display case, which usually requires a humidifier to help keep cigars fresh.

Freshness and rapid turnover have been essential and brand identification has also been paramount. Visibility has been important, for consumers tend to judge cigars according to the shade of the outside leaf or wrapper.

Cigars, of course, are fragile. They are subject to breakage, mold (from too much moisture), drying out (from too little moisture) and odor contamination. For these reasons, packaging machines must handle the product gently; wrappings must permit tobacco to breathe yet keep the cigar from drying out too rapidly, and adhesives used for bands and boxes must not carry odors that will be absorbed by the tobacco.

The cigar smoker not only demands a fresh cigar, but he is also influenced by shape, price, taste and brand familiarity. Obviously, therefore, all the above factors that traditionally have had to be taken into account, plus all the protection and merchandising features to be considered, add up to quite a "package" of commitments for the cigar manufacturer.

Meanwhile, supermarkets and other modern outlets are making new demands on cigar packaging. Self-service merchandising dispenses with the glass case and humidifier and this puts an added burden on the package—not only to protect the product, but also to stimulate fast turnover that will assure a fresh product. Self service also demands increased emphasis on the smaller unit of sale.

Package evolution

The Robt. Burns trade name, label and box, as previously described, have been virtually standard for nearly 100 years.

The band has been around for a long time, too. Cigar bands first appeared between 1885 and 1890. According to one source, they were adopted not for purposes of identification, but because there were a few



FIVE-PACKS were introduced as a new package form for Robt. Burns cigars in 1921. Illustration above shows 1939 version (left) and the current style.

lady cigar smokers in those days and the first bands were designed to keep the ladies from staining their dainty fingers.

However, it is more likely that bands came into being as an improvement on cigar branding, which was an early device used to identify the individual cigar and prevent substitution.

Robt. Burns probably adopted the

D I S P L A Y E D with other brands, dignity of Robt. Burns label affords distinctiveness and makes the brand easy to recognize.





MODERN LINE shows equipment which wraps Robt. Burns Cigars in cellophane, applies the band and packs five cigars into a carton.



CIGARILLOS CARTONS are overwrapped in cellophane by this machine and are packed 10 to a display carton, also cellophane wrapped.

band about 1895. At first the Burns portrait was featured. By 1920 the name alone was employed, since the limited space on the band precluded both the portrait and large, visible lettering. The first bands were gold, red and gray in color. They were flat and rectangular in shape and were applied by hand. Today's die-cut band features a plaid background. Colors are gold, red, white and black. One end of the band is gummed with a special dextrine adhesive. The band is applied by machine at speeds up to 70 a minute.

In 1919, when the General Cigar Co. intensified national promotion of Robt. Burns cigars, the line included such shapes as Bouquets, Invincibles and the Longfellow. Two small cigars, Little Bobbie and Robt. Burns Ladies, were also featured. The Longfellow was the most expensive size, at 15 cents, and was wrapped in foil.

A five-pack of foil-wrapped Invincibles was introduced in 1921. The box was a shoulder-type, set-up construction employing a hinged, telescoping lid and a grained-wood design. This package eventually evolved into today's familiar five-pack carton.

Foil was widely used on the various Burns sizes for about 10 years. At first a star-pattern design was employed, later a random script pattern of "General Cigar Co.—Robt. Burns" provided better emphasis on company and brand.

In 1930 Robt. Burns introduced its new "Crystal Wrap." The advertising copywriter evidently had little idea of what important packaging history was taking place. The "Crystal Wrap" was not even identified as cellophane, nor was it pointed out that here at last was the ideal protective wrap—one that helped retain just the right amount of moisture, that cushioned the cigar against breakage and that in effect provided its own built-in showcase. The conquest of cellophane has now been so complete in this industry that today close to 100% of all cigars are packaged in cellophane.

Through the years, the General Cigar Co. discontinued certain shapes and introduced others to meet changing preferences. Its complete line now

consists of Robt. Burns Classic, Panatela de Luxe, Perfecto Royal, Corona Supreme, Imperials and Cigarillos. The Panatela de Luxe, a long, slim, blunt-end cigar, is Havana filled and employs a Sumatra wrapper. All others employ Connecticut shade-grown wrappers.

Just as in beer and many other lines, the trend in cigars has been toward greater mildness. Wrappers that are light in color (light colors are apparently associated with mildness) have been in demand. General Cigar has been actively engaged in the cultivation of special Connecticut strains and intensive research has been conducted to make sure that flavor would not be sacrificed—a risk that is inherent in any continuous search for

lightness and mildness in a cigar.

For years, Robt. Burns has been widely advertised in national magazines. One early theme was that "Wherever men travel throughout the United States, they will find Robt. Burns Cigars." Another stressed brand loyalty; cited dealers' reports that Robt. Burns smokers were the most insistent against substitutions.

In the thirties, popular dance bands were featured on Robt. Burns radio programs. Today, ads in the Sunday newspaper magazines carry the brunt of the promotion. Television programs, such as Madison Square Garden sports events, are currently used for Robt. Burns. The sister-brand White Owls, aimed at the popular-price market, are known for their co-sponsorship of Yankee baseball telecasts and the White Owl Sports Spot, featuring Mel Allen, which is televised weekly over a nationwide network.

Cigar merchandising now shows signs of broadening out into other outlets. An increasing percentage of cigar sales is now being made in supermarkets and in vending machines. The five-pack is quite popular as a small-sized, multiple-unit package.

Robt. Burns packaging reveals an awareness of these changes. The five-pack of Panatelas de Luxe made its

reappearance this year in a new dress. Special packages for Father's Day, Christmas and "Blessed Event" have been introduced—the current Christmas wrap being shown on our cover. The Robt. Burns supermarket merchandising fixture has had marked success and other merchandising advancements are on the way.

General Cigar's rate of growth (for all its brands) was five times as large as the over-all rate for the industry in 1952 and for the first seven months of 1953 the ratio favored General Cigar by six to one. The long heritage of good packaging, dignified advertising and smart merchandising of Robt. Burns has had a great deal to do with General Cigar's progress, maintaining traditions of quality, value and leadership that have been in existence for a century.

CREDITS (for current packages): Cigar bands, Christmas tops and inside box labels, Consolidated Lithographing Corp., Glen Cove & Voice Rds., Carle Place, Long Island, N. Y. Cigar boxes, Alexander Ungar, Inc., Peace & Washington Sts., New Brunswick, N. J.; Autokraft Box Corp., Maple Ave., Hanover, Pa., and Nu-Box Co., New Cumberland, Pa. Five-pack cartons, Lord Baltimore Press, 1601 Edison Hwy., Baltimore 13, Md. Cellophane, E. I. du Pont de Nemours & Co., Inc., Wilmington 98, Del. Shipping cases, National Container Corp.,



NEW PACKAGE for traditional cigar-giving occasion comes in blue or pink to capitalize on a well-established merchandising opportunity. The individual wrappers are specially printed.

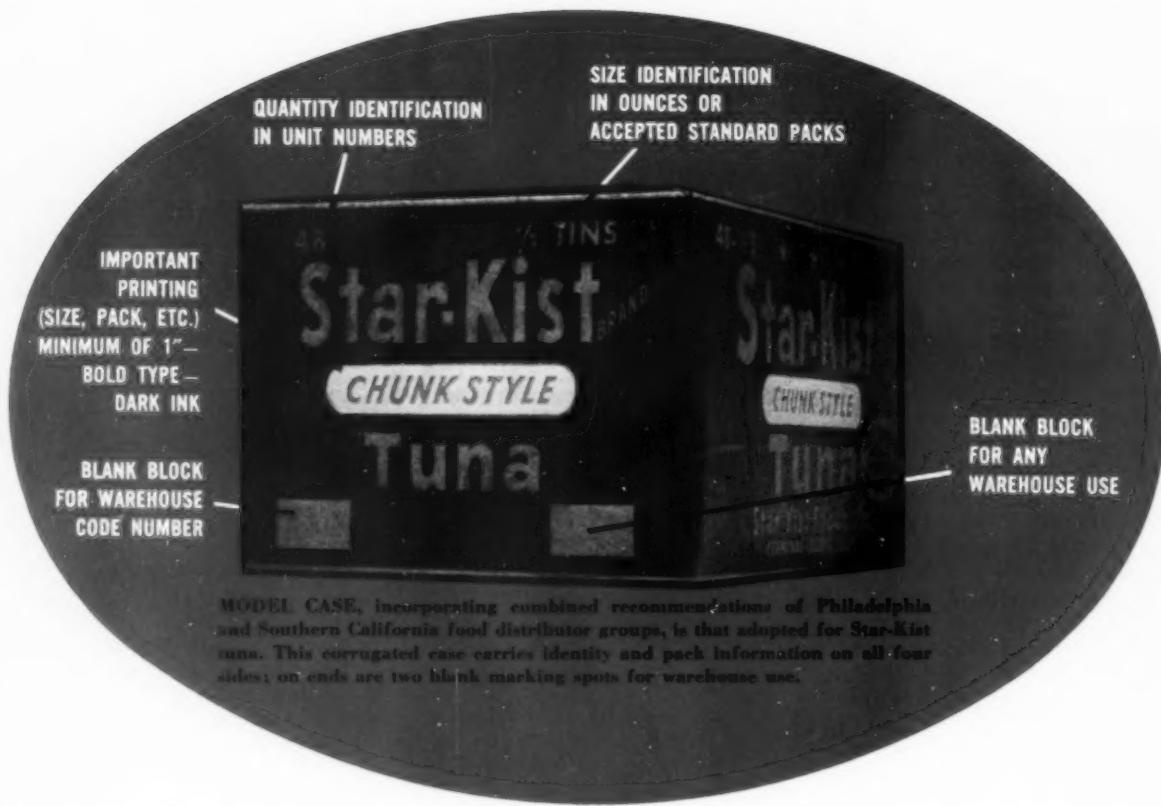
500 Fifth Ave., New York 36, and Star Corrugated Box Co., 55-15 Grand Ave., Maspeth, Long Island, N. Y. Wrapping machinery, Hayssen Mfg. Co., 1305 St. Clair Ave., Sheboygan, Wis.; International Cigar Machinery Co., 511 Fifth Ave., New York, and Scandia Machine Co., Belleville Turnpike, North Arlington, N. J. Banding machines, International Banding Machine Division of Consolidated Lithographing Corp., 1013 Grand St., Brooklyn. Revenue stamp and cancellation machine, International Cigar Machinery Co.

CIGARILLOS are one of several important styles Robt. Burns has popularized to win new smokers and stimulate widening preferences for specific blends, shapes, sizes,



RACK DISPLAY introduced by General Cigar Co. has spurred cigar sales in self-service stores, where effective packaging and display must carry full burden for fast turnover.





Standards for cases

Food distributors propose five simple points of design that will greatly facilitate their handling of shipping cases

An industry as huge and complex as packaged foods probably never will achieve the degree of standardization in shipping packages that has been reached in drugs and other lines. But food distributors believe that agreement could and should be reached at least on uniform marking practices, which would greatly simplify their warehousing operations. Proposals are now being brought forward.

A leader in the movement is the Food Distributors Assn. of the Philadelphia Trading Area, composed of 60 companies representing all lines of food distribution including retailer-owned stores, chains and supermarkets, voluntary chains and wholesalers. Their specifications have also been endorsed by the Food Industries Warehouse Superintendents of South-

ern California and are expected to be presented before a committee studying the problem for the National Assn. of Food Chains. Already the container recommendations have been forwarded to various food manufacturers who reportedly have reacted favorably.

The proposals, adopted by the Philadelphia and California groups, boil down to five specific points affecting corrugated shipping cases, none of which, they say, would increase the manufacturer's cost or cause any complication on the production line. The five points are:

(1) All cases should be rectangular in shape, primarily for better stacking on pallets. (Square cases are difficult to handle and can't be piled in a modern warehouse above six or seven rows

before toppling. Practical warehousemen unanimously prefer rectangular cases for better handling and stacking.)

(2) All printing on cases should be a minimum of 1 in. in bold type printed in dark ink. (Larger letters would aid the warehousemen greatly in quickly reading the cases and eliminate fumbling for pertinent information. Larger printing saves time, confusion and error.)

(3) Quantity in unit numbers should be in the upper left-hand corner of the case. Size of pack should be on the upper right-hand corner. (At present there is a great variance in the identification of cases. With this uniform identification, warehousemen would know exactly where to look for the required information and



PALLETIZED STACKS of new Star-Kist cartons provide utmost convenience for warehouse and stock men. Positive identity of each load avoids costly, time-consuming mistakes. Note that at least five ends, with warehouse marking space, face outward.

maximum efficiency could be obtained.)

(4) All cases should be marked on at least two ends—preferably on four sides. Since only the ends of the cases usually are visible to the warehousemen, the proper information should be listed clearly, as above, on at least two ends. Many cases are now marked only on one end or one side and in many instances the blank end is turned forward during transportation.

If the cases can be marked on the two sides as well as the two ends—so much the better.

(5) Provision should be made for two blank spots at the lower left and right-hand corners of the case no less than 1 in. in height and 3 in. in width to accommodate four numerals. (Ware-

houses using their own code numbers to locate merchandise quickly and efficiently save a lot of time. The block in the lower left-hand corner would be used for a general over-all warehouse code. The block on the lower right-hand corner could be used in any number of ways, such as in the block or slot system now employed in various warehouses or for indication of date, number, etc. These blocks, adapted to a particular warehouse system, would result in a more efficient operation.)

Recent widespread interest in improving food-shipping containers generally has sprung from the work of such associations and also traces back to some earlier efforts of the Commodity Standards Division of the United States Department of Commerce under the direction of W. E. Braithwaite, now retired. This Government group instrumented a series of talks with representatives of food distributors on ways to improve the designing and marking of shipping containers for more efficient palletizing at the warehouse level.

At a meeting in March of this year, this committee was dissolved, since it was believed that better progress could be made by cooperation directly between food distributors, retailers and manufacturers. Various food-distributor groups have since established commodity committees and are working with the Grocery Mfrs. of America and other trade associations.

One active committee of distributors operates under the wing of the

National Assn. of Food Chains. The committee is divided into six subcommittees so that a comprehensive study of shipping products under all types of conditions can be made: soaps and sugar, Dr. John R. Whitaker of American Stores, chairman; glass packages, John C. Charmomeau of Grand Union; labels and marking, David Gardener of Operation, Inc.; paper products, Johnson Reeves of Reeves, Parvin & Co., Philadelphia; cereals, flour and feeds, R. L. Thomas, Certified Grocers of California, Ltd., Los Angeles; transparent packaged merchandise, Charles S. Ragland of C. B. Ragland Co., Nashville.

In the opinion of committee members, progress in this field is expected to have a pronounced effect on reducing damage to merchandise in transit and in warehouses, thereby giving the retailer a more salable package.

The efforts of these groups are already beginning to show results.

One of the first to follow the five points recommended by the Philadelphia and California groups in designing a shipping container is the French Sardine Co., Inc., Terminal Island, Calif., for its Star-Kist tunafish. In the upper left-hand corner is the count designation of 48 cans and in the upper right-hand corner the pack designation of "½ tins." Centered on the carton in large bold letters is the Star-Kist brand name and below it, in a circle, the designation of whether it's the solid pack or chunk style. Directly below this type, and also in (*This article continued on page 197*)



BRAND DISPLAY need not be sacrificed under new standards. Although it does not conform exactly to recommendations, Yes Tissues carton is considered a well-marked, well-identified container.

Design

Baked-in-container delicacy is easy to package—easy to serve



Date-pean loaf is baked and merchandised in this new liquid-tight paper container by the J & J Foods Co., Englewood, Ohio. The container was selected to provide an attractive unit for self-service sales and to win new customers by making the product easy to serve. The fresh, relatively fragile date loaf need not be disturbed in removing it from the container, which is slit down the side, exposing the perfect cylindrical delicacy so that it can be neatly sliced for serving or for spreading with butter, cheese or jam prior to serving. Packaging demands of the products are met by a vinyl-plastic coating featured in the new container. The coating is formulated to be taste free and reliable for moist and oily products as well as for foods less critical in their packaging requirements and to make the container practical for baking and deep freeze.

CREDIT: "Alservice Nestyle" container, Sealright Co., Inc., Fulton, N. Y.

New 'pen' automatically dispenses paints, adhesives, solder



In an age of convenience, the Tipon Corp., South Kearny, N. J., has appropriately introduced a line of touch-up paints, solder and adhesive in a heavy-gauge aluminum cartridge. Roughly equivalent to the size of a fountain pen, the dispenser, which is also the package, is especially handy for use at home or to carry in the car. To operate the new dispenser package, the consumer removes a phenolic cap and tips the cartridge down until a nylon brush, flow-saturated with product, appears. The brush automatically retracts when the cartridge is tilted up. In "writing" position, the cartridge dispenses a controlled application of the product to facilitate neat and efficient touch-up or repair work. Spilling and misuse of the product are avoided—a fact that is appreciated both by the expert and the amateur. The nozzle through which the brush is ejected is phenolic and the cartridge is lithographed in two colors to assure streamlined sales appeal. The aluminum cartridge is designed to give positive protection so that products it houses will not cake.

Histories—

Re-use container for children sparks cookie sales

Juvenile delight and strong appetite appeal are combined features of a composite paperboard container adopted by Sunshine Biscuits for cookies that are shaped like children's blocks and are named "Toy Cookies." The container is a spiral-wound canister laminated with a sparkling cellophane wrapper. The wrapper, printed in seven colors, is pictured with bright toy building blocks representing the shapes of the cookies. The container has a red metal bottom, handle and cover. Its pail shape suggests numerous re-use possibilities to the child or adult shopper. The merchandising theme created for the product and its package is strong in novelty interest and its appeal to children is another example of the many products that are showing increased recognition of the buying influence that children wield—particularly in foods.

CREDITS: Composite containers, Cellu-Fibre Can Corp., Brooklyn. Cellophane wrappers (Colodense printed), Shellmar-Betner Div., Continental Can Co., Mt. Vernon, Ohio.



Cockpit window shows product

Because a survey showed more automobile compasses are sold as gift items than for any other purpose, the Dinsmore Instrument Co., Flint, Mich., has adopted a unique window carton that affords a full-on view of the compass. Each compass is mounted in its carton in the same fashion that it will appear in the user's car. Displayed with it is the light fixture and bulb that illuminate the compass for night driving. Visibility display is accentuated by the clear acetate film mounted in the die-cut carton. The carton's ultra-modern design employs free-form lines tapering on the sides from front to back. Outside colors are white and black on a soft blue background. The interior color is a bright yellow, providing an effective setting for the instrument. Reportedly, the new carton is produced at a cost of only a fraction of a cent more per package than the former closed package.

CREDITS: Package design, Alan Berni & Associates, Inc., New York. Carton, Barger Box & Printing Corp., Elkhart, Ind., using Celanese Lumarith acetate film.



Faster foil-tray packs

Myers uses new automatic equipment in conjunction with a paperboard cover for frozen pies and croquettes

An important advance in the use of the aluminum-foil tray pack for high-speed food packaging has been made through the development of fully automatic equipment for closing a specially designed new version of the foil-tray package which has a paperboard cover instead of the former heavy-gauge foil cover.

Among the first to put this new packaging method into operation is Myers Foods, Plumsteadville, Pa., makers of quality Pennsylvania-Dutch-type frozen chicken and beef pies and croquettes.

The installation, which operates at speeds of about 45 per minute, consists of a special attachment to a wrapping machine which places the lid in position by means of automatic suction fingers before the package ar-

rives at the wrapping station where the sides of the covers, supplied in scored form, are bent down. An outer wrap comprised of a foil-wax-paper combination is finally placed over the package and heat sealed.

When Myers began production of its frozen pies about five years ago, the aluminum-tray package, introduced about that time, was selected because it permitted freezing of the product in the package and offered the added consumer convenience of reheating the product right in the package in the home. Furthermore, contents could be frozen quickly and the compact rectangular shape made the packages easy to handle on large trays and easy to pack in master cartons for storage and shipment.

The trim, sanitary appearance of

the aluminum package was another advantage which helped in building up sales for the products which are displayed in frozen-food cabinets.

Until the recent automatic installation, however, the aluminum-tray package could be closed only with semi-automatic equipment and during the past year Myers found itself in the position of having to refuse a very lucrative amount of business because the company simply could not turn out the packages fast enough.

Largely because of the demand of Myers and others, the supplier of the trays began studying methods for faster handling and a new version—specifically designed for use with high-speed packaging equipment—is now in use at Myers on a converted wrapping machine with special attachments for applying and closing the covers.

The original heavy-gauge foil tray is retained for holding the food, but the former foil lid is replaced by a 0.012 virgin pulp, waxed paperboard cover, which when placed over the container with the sides folded down, helps to give stability to the package. Where required, the cover may be made with a laminated-foil inner liner. An attractive, heat-sealed, foil-wax-paper laminated overwrap is used over the whole.

In the Myers operation, vegetables and meats used in the pies are cooked in steam-jacketed kettles. Immaculately clad workers, many of them Pennsylvania-Dutch Mennonites, cut the foods into suitable-size pieces which are stacked on trays for chilling. After chilling, the trays are filled with correct proportions of meat and vegetables. Sauce is also chilled before it is added. The crust is formed on a pastry machine which mixes, fills and cuts the crust to fit. It is placed on each pie by hand. The filled foil packages are placed on large trays and wheeled to freezers where they are held overnight.

In the frozen state, the filled trays

NEW VERSION of aluminum-tray package consists of the same heavy-gauge foil tray formerly used by Myers, with a paperboard cover automatically applied and a colorfully printed foil-wax-paper laminated overwrap.



are fed to the station of the wrapping machine where lids are placed in position by means of the automatic suction-cup fingers.

The trays continue to the wrapping station where the sides of the scored covers are bent down and the wrap placed over the package in one operation. The packages finally travel over and through heat-sealing plates which tightly bond the overwrap to itself, giving added moisture protection.

The printed foil-wax-paper overwrap is supplied in roll form and is cut to size automatically on the machine. Accuracy is maintained both in the cutting and placing of the overwrap by means of electric-eye registration. The overwrap, printed with a Pennsylvania-Dutch design in red, black and white, has colorful eye appeal and strong trade identity.

Finished packages are packed 12 to the shipping carton, ready for storage and distribution.

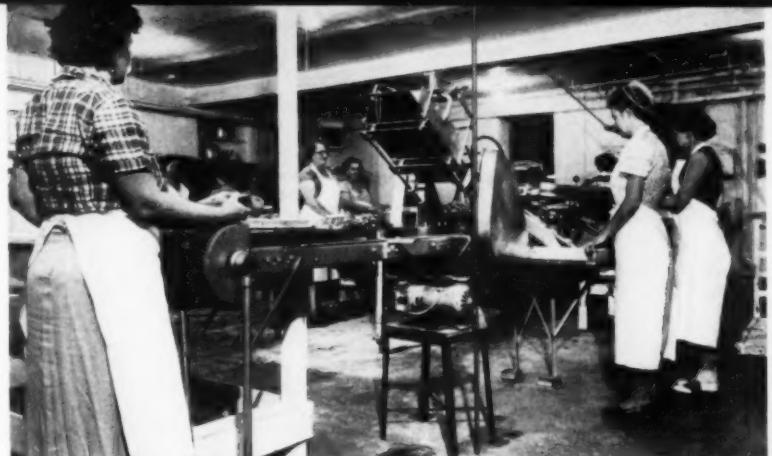
The Myers organization is most enthusiastic about this new automatic method of closing its packages which are helping the company to meet the steadily increasing demand for its products that now include frozen chicken croquettes and oyster pie in addition to the original frozen chicken and beef pies.

The founder is fond of recounting the start of the business with one small truck which carried an ice-cream freezer holding the pies. Today the company distributes in eight states and contemplates greatly enlarging its facilities with the addition of further packaging equipment to broaden distribution.

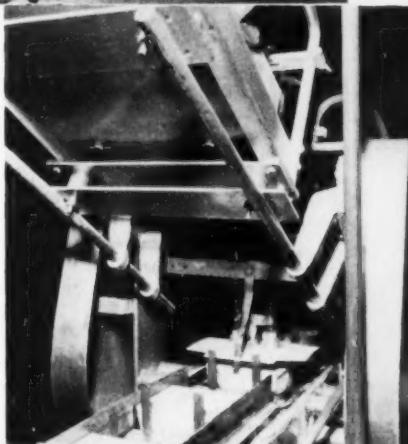
Another company, Weiland Packing Co., Phoenixville, Pa., packers of scrapple, a Pennsylvania breakfast delicacy, reports that it has doubled production with a similar automatic installation for using the aluminum-tray pack.

From the beginning Weiland was enthusiastic about the ease of handling scrapple in the foil-tray pack. Traditionally, this product had to be poured into large metal pans while hot, then chilled and cut into 1- and 2-lb. units and wrapped—an operation which was time consuming and did not result in a package suited for today's conditions of self-service food marketing.

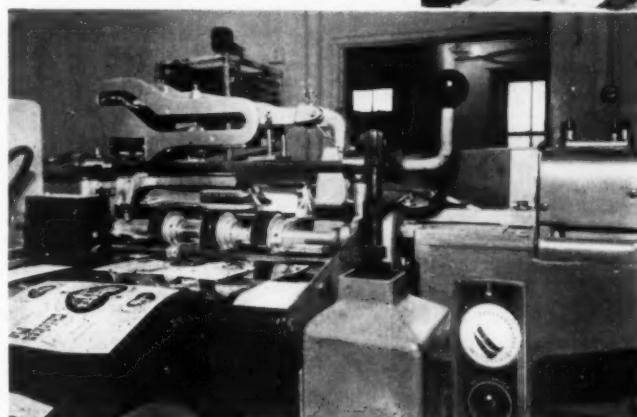
Through the use of the foil-tray pack, the scrapple can be poured directly into the trays at 220 deg. F., a



OVER-ALL VIEW of the new Myers packaging operation shows the overwrapping machine installation with the attachments for applying paperboard lids to the aluminum-foil trays.



SUCTION FINGERS automatically place the die-cut, scored paperboard cover in position before the package arrives at wrapping station.



LIDS ARE BENT down at wrapping station just before application of the preprinted overwrap, which is then securely heat sealed.

feature Weiland values, since it greatly lessens chances of contamination and spoilage. No further handling is required after chilling. By means of the automatic equipment for closing the lid and wrapping the trays, the completed individual foil-tray packages can be put directly from the packaging machine into shipping cartons holding 12 each at a temperature only a degree or two less than the product was when it left the steam-jacketed kettles for

processing. And filled shipping cartons can be conveyed immediately to refrigerated storage without a delay for cooling.

CREDITS: Aluminum tray packages and laminated-foil overwrap (Reyscal), Reynolds Metals Co., 2500 S. Third St., Louisville, Ky. Paperboard covers, The Bradley & Gilbert Co., 650 S. Seventh St., Louisville, Ky. Wrapping machine (No. 3-7) with automatic suction-cup finger attachment, Hayssen Mfg. Co., 1305 St. Clair Ave., Sheboygan, Wis.



ASSURANCE of germ-free contents is now added to these tuck-top cartons, cellophane sealed, which convey Warren's baby pants and bibs. Ultraviolet irradiation attends the new mechanized packaging operation.

Germicidal mechanization

**It gives new efficiency to the cartoning of textile items
and a new selling point for Warren's baby garments**

A study in mechanized packaging efficiency unusual in the textile field, and particularly unusual in a smaller plant, may be found at the Warren Featherbone Co., Three Oaks, Mich., where three of the latest automatic machines, linked together by conveyors, are used to set up tuck-top folding cartons, close them and overwrap them with cellophane.

A special feature of the Featherbone operation, which is concerned with the packaging of infants' wear such as pants and bibs, is the liberal use of ultraviolet lamps along the conveyor lines, so that the company may make the sales-compelling claim of providing a ready-to-use germ-free garment.

Mechanizing all but the placing of the garments in the packages, the installation represents, possibly, the maximum of packaging efficiency for such products and may serve as a model for other carton-packaging operations not only in the textile industry, but in many others where

the product is such that it does lend itself to mechanical filling.

From start to finish, a Featherbone baby garment (sold under the trade name of Warren's) is handled only once by an operator, garbed in an immaculate white uniform, who merely folds it and drops it into the already-opened carton—an operation performed under powerful violet irradiation. The completely sanitized, germ-killing atmosphere is maintained until the individual carton is overwrapped and sealed in cellophane. In this way the garment remains unexposed and uncontaminated until it reaches the ultimate user.

Under the mechanized production set-up, the Featherbone management reports, the packaging rate has been tripled and, when operations are fully under way, the company expects that the number of workers can be halved. Operators who once set their own speeds are now paced by the speed of the line.

The machines, particularly the overwrapping machine, are individ-

ually familiar to textile manufacturers, but this is believed to be the first time that all three have been set up as a team.

At the head of the line, the continuous-motion carton-forming machine—which sets the pace for the entire line—produces anywhere from 40 to 100 glued-style cartons a minute, depending upon the size of the carton. Savings in carton costs have been registered because the machine feeds from a magazine of inexpensive die-cut blanks, and other savings are being realized since only one attendant, who could look after as many as three machines, is required. Since flat blanks are loaded without interruption of the machine, the operating speed is also the effective production speed.

The carton magazine holds from 500 to 1,000 blanks, again depending upon the style of the carton. Blanks are automatically vacuum fed from the magazine and the formed cartons are discharged sitting right-side up with top flaps open, onto a

continuous conveyor ready for filling.

Free riding on a canvas conveyor belt is possible because the flat cartons open on their broad side. Smooth, high speed is possible because of the construction of this machine, which eliminates all stop-and-start reciprocating motions.

Immediately on leaving the set-up machine, the cartons pass under the first long ultraviolet fixture to sterilize the empty package. Stationed along the conveyor beyond the sterilizing fixture are girls who place the garments in the cartons. For over-all protection, several ultraviolet lamps are positioned on a wall over and parallel with the packaging line.

From the filling station the cartons move onto a second conveyor and immediately under another ultraviolet fixture, which kills any germs borne by the hands in filling.

The conveyor carries the filled, sterilized cartons into a standard type of closing machine. The top-tuck carton, which is easily closed by the machine, has trimmed carton costs and is easier to load than the former side-tuck carton.

Still traveling in a continuous line and still under ultraviolet radiation, the filled and closed carton travels on to the heat-sealing, cellophane-overwrapping machine.

Sealed packages are loaded by two girls in 1-dozen display cartons.

Explaining the company's viewpoint on sterilization, which it carries almost to the level of a pharmaceutical laboratory, President Charles E. Whalen says the conclusion was reached that a clean *appearing* package was not enough where intimate apparel for infants was concerned. It was felt that a competitive advantage mothers would appreciate could be obtained if the added assurance of a completely sterile package and product could be given. It is for that reason that the process which the company calls "Stereo-Pak" was introduced and played up in sell copy.

CREDITS: Models PA carton former, PC carton closer and FA overwrapper. Package Machinery Co., East Longmeadow P. O., Springfield, Mass. General Electric ultraviolet lamps and fixtures supplied by Roy C. Stove & Co., Valparaiso, Ind. Cellophane, E. I. du Pont de Nemours & Co., Inc., Wilmington 98, Del. Cartons, Federal Carton Corp., 2001 Tonnelle Ave., North Bergen, N. J. Gluc, Paisley Products, Inc., 1770 Canalport Ave., Chicago 16.

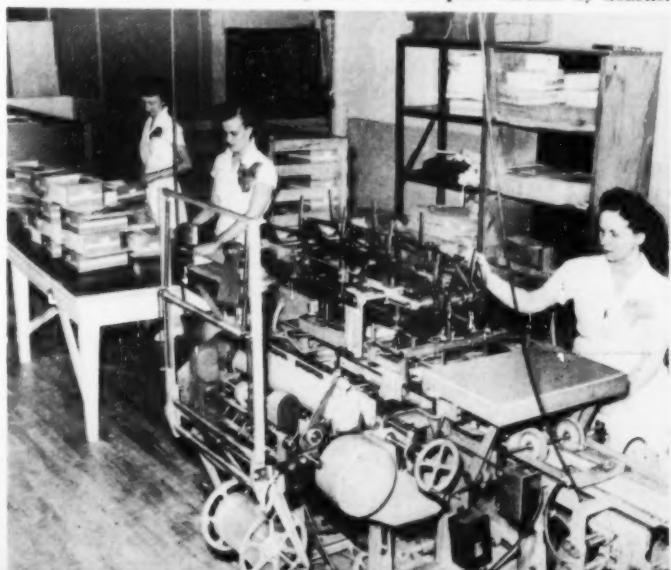


CARTON FORMER deposits up to 100 opened cartons per minute on conveyor which carries them directly under ultraviolet fixture.



CARTON FILLING (left) is the only hand operation. Another ultraviolet fixture (center) immediately sterilizes the contents as cartons pass into machine (right) which closes and tucks the flaps.

CARTON OVERWRAPPER completes airtight, germ-free package with heat-sealed cellophane wrap. Girls at left pack cartons by dozens.



P U C K A J U G



1



2



5



6



7

1 Interesting packaging possibilities for cast vinyl film are indicated by new display envelopes for Christmas tags adopted by Dennison Mfg. Co. The non-shrink windows of cast vinyl film were chosen to withstand long seasonal handling and to resist dust, discoloring, cracking, tearing and mold. Cast vinyl film, Bakelite Co., Div. of Union Carbide & Carbon Corp., New York.

2 From Holland comes a new idea for engineering four-section, die-cut paperboard inserts that protect Leerdam crystal glassware imported by A. J. Van Dugteren & Sons, New York. Notched to lock each glass firmly in place, the inserts prevent contact and conserve space. The inserts are designed to fit in Dutch blue set-up gift boxes reinforced with white-enamaled metal strips.

3 Historic vehicles depicted on heavy-bottom re-use tumblers for the new Armour Star Peanut Butter are typical of appealing novelty approaches required to win new customers with re-use glass packaging. Series covers steamboat, stage coach, covered wagon, high-wheel bike, early automobile, locomotive. Tumblers, Hazel-Atlas Glass Co., Wheeling, W. Va. Closures, White Cap Co., Chicago.

4 New two-way, heat-seal paperboard toppers, reported to have boosted sales of Langendorf cookies, may be read in either of the two most-used shelf-display positions for cellophane-bagged cookies. Added attraction for juvenile market is trading-card insert. Labels, Fairbairn Tape & Label Co., Inc., San Francisco.

5 Three die-cut windows designed in perspective show off Trol's Trio for Men in a new gift package surfaced in gold foil. The protective sleeve adds a holiday note. Package design, George Reiner, New York. Cartons, Sample-Durick Co., Inc., Chicopee, Mass.

6 Fluted sides make the new one-fifth-size bottle of Sanford's Penit ink easier and safer to handle; the spout cap makes pouring simpler. The folding carton is

PUGGOUT



3



4

in character with the functional modern design. Bottles, Owens-Illinois Glass Co., Toledo, Ohio. Labels, Frank G. Shuman Co., Chicago. Spout caps, A. H. Wirz, Inc., Chester, Pa. Metal shells, Phoenix Metal Cap Co., Chicago. Folding cartons, Carton Craftsman, Chicago.

7 Four-color photographic illustration on a cellophane overwrap does full justice to Bowman Biscuit Co.'s Assortment Supreme. An out-of-the-ordinary background of Kelly green, red and black throws the tempting realism of the cookies on their tray into high visibility. Colodense-printed overwrap, Shellmar-Betner Flexible Packaging Div., Continental Can Co., New York.

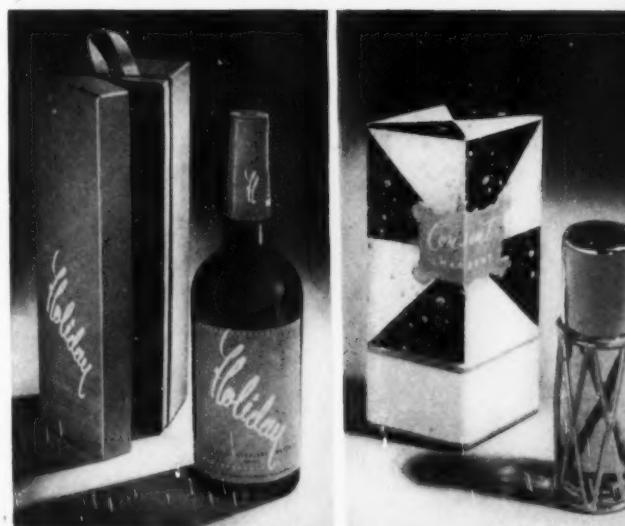
8 VCI paper, long used in military and industrial corrosion-preventive packaging, is being introduced as VPI Rust-X for household and workshop use by the Marvellum Co. in a fibreboard tube labeled to list and illustrate typical uses. Display cartons are putting this new item on hardware and department-store counters. Fibre tube, Middlesex Paper Tube Co., Lowell, Mass. Label, General Offset Printing Co., Inc., Springfield, Mass. Carton, Sample-Durick Co., Inc., Chicopee, Mass.

9 Tradition-breaking design for Louis Forman & Co. Holiday whiskey package has just won top honors in Philadelphia Art Directors' competition. Embossed labels and hinged box are gray and white. Perforated capsule paper closure is broken simply by twisting. Design, Mel Richman Studios, Philadelphia. Labels, Ketterlinus Lithographic Mfg. Co., Philadelphia. Corks, Armstrong Cork Co., Lancaster, Pa. Band, Capsules, Ltd., Montreal. Box, Royal-Pioneer Box Mfg. Co., Inc., Philadelphia.

10 Charbert's new perfume pockette carries out the famous drum motif in diamond-shaped metal grill-work and spillproof cap. A chic gift box in black and white triangles is flecked with gold, with a center seal carrying the "Consent" perfume name. Design, Ernest Ehrman, New York. Box, F. N. Burt Co., Inc., Buffalo,



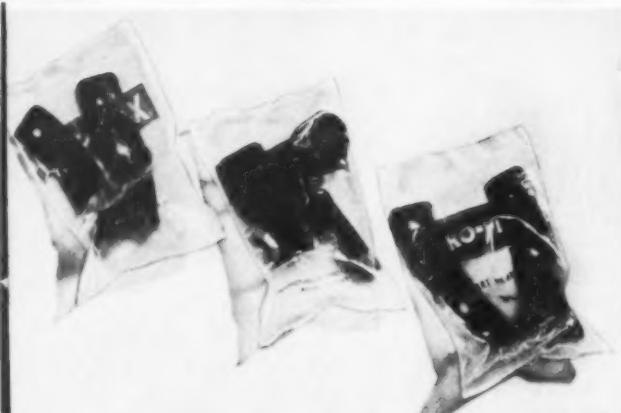
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P U C C A J I U G



11

N. Y. Box wrap, Donrico, Inc., New York. Cap, Richford Corp., New York. Grillwork, Roth & Steiner, Inc., N. Y.

11 Brackets for mounting rear-vision mirrors on trucks are being marketed by Miro-Flex Co., Wichita, Kans., in polyethylene bags to protect them against moisture and handling. Trademark and part number in red printing enable purchasers to select the proper type of bracket. Printed bags, Mehl Mfg. Co., Cincinnati, Ohio.

12 A blister of transparent acetate butyrate, vacuum formed to perfect fit, solves the problem of visibility packaging for Seymour Smith & Son's "Snap-Cut" "His and Her" pruning shears. The blister is held in place by its wide lip inside the die cut and is secured with product in place when flaps of the die-cut paperboard folder are inserted into closing slots on the back. Blister-Pak, Merit Displays Co., New York.

13 Current addition to the Heinz label redesign program in progress for two years is the company's strained and junior baby foods. New labels with baby illustration highlight brand name and trademark, classification, specific product. Labels, The Nevin Co., Clifton, N. J.

14 Carry bands offer new take-home convenience to purchasers of Armour Star canned hams. Decorated with a Yule motif for gift sales, the new handle conceals a re-usable jumbo opener that will open any key-type can. Bands are sealed at the base by a cohesive cement that sticks only to itself. Bands, Morris Paper Mills, Chicago.

15 The distinctive carton and sturdy-based bottle for J. R. Watkins' new product, Mary King Pink Silk Lotion, is designed for direct house-to-house selling. Lotion is pink, cap is white, labeling pink and blue. Bottle and plastic closure, Owens-Illinois Glass Co., Toledo.

16 A pouch of polyethylene film has stimulated sales of California "Bambino" baby turkeys this year. Solid red printing conceals the under side of the bird.



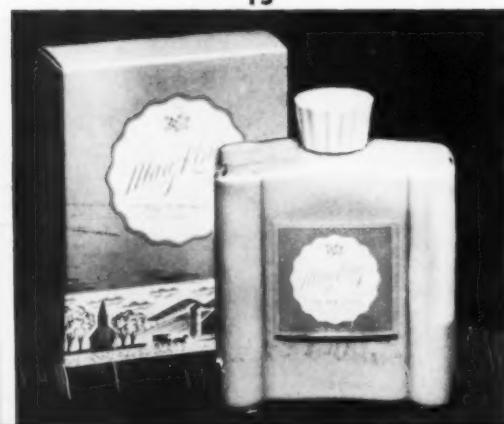
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14



15



16

PAGANT

while red and white printing decorates the display side. Sufficient visibility is left through the perky design to permit visual inspection of the fowl by shoppers. Bags, Milprint, Inc., Milwaukee, Wis.

17 A rigid, transparent, two-piece formed acetate box makes a perfect package for baby goods that sell themselves on sight. Griptite Corp.'s vacuum-suction-cup dish that holds baby's dinner to the table is combined with an Oneida sterling spoon in its own acetate container. Kodapak sheet, Eastman Kodak Co., Rochester, N. Y. Vacuum-formed containers, The C. W. Zumbiel Co., Cincinnati, Ohio.

18 Elmer's Glue-All, a product of The Borden Co.'s Chemical Div., has a new package that will make glue easier and more convenient to use—a handy polyethylene squeeze bottle with an easy-applicator top. Bottle and applicator, Plax Corp., Hartford, Conn.

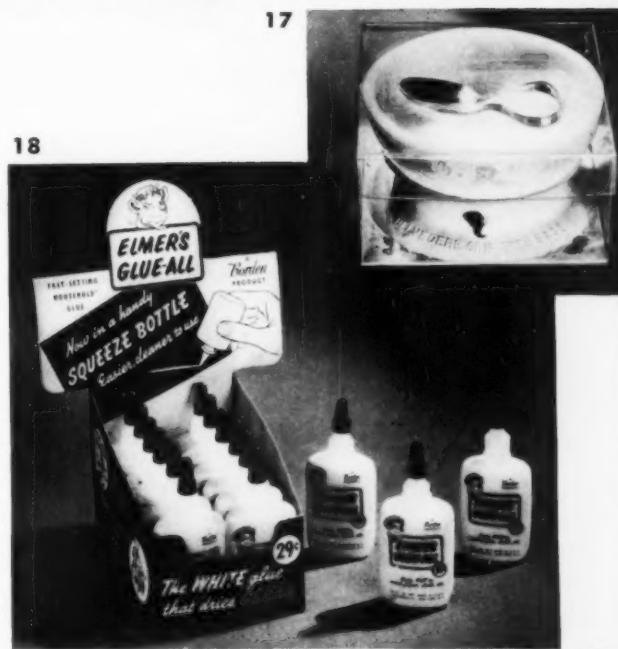
19 The Federal Glass Co. has redesigned the package for its tumbler set of eight to offer greater eye appeal while retaining elements of the old design. New colors—red and blue—heighten the effect. Design, Lippincott & Margulies, Inc., New York. Carton, American Coating Mills Div., Robert Gair Co., Inc., Chicago.

20 Lithographed in realistic colors from Kodachrome photographs of the matured flower, these folding cartons for bulbs are sent abroad for packing in Holland prior to shipment. Sales increases of 100% for each of the three years following their adoption are reported by Bulbs, Inc., the importer. Printing, Rossotti Lithograph Corp., North Bergen, N. J.

21 Proquil, non-habit-forming sleeping aid, is packaged for over-the-counter sales (without prescription) by Hance Bros. & White Co. in a clear glass vial with a polyethylene stopper. Ethical labeling in modern type completes the package. "Opticlear" vials and stoppers, Kimble Glass Co., subsidiary of Owens-Illinois Glass Co., Toledo.



DECEMBER 1953



125

Industrial packaging highlights

Awards for outstanding individual developments feature

Boston show and conference of SIPMHE, attended by 7,100

The first industrial packaging show ever held in New England, the eighth annual Industrial Packaging and Materials Handling Exposition and concurrent Competition and Technical Short Course, attracted some 7,100 registrants to Boston's Mechanics Hall, Oct. 19-21. More than 500 attended the Short Course, which was conducted by the Mechanical Engineering Department of the Massachusetts Institute of Technology.

The Exposition, with more than 100 exhibitors, drew attendance not only from Boston and New England industries, but from points as far as Finland and California, according to the Society of Industrial Packaging

and Materials Handling Engineers, which sponsored the entire affair.

Interest in the show transcended the field of industrial, military and shipping packaging, which it was intended to cover, and included many of the newer techniques of corrosion-preventive and protective packaging applicable to consumer products. Visitors seemed to be particularly attracted by recent developments in volatile corrosion inhibitors, reinforced papers and tapes, strip coatings, foils, cushioning, imprinting and marking equipment, heat sealing, conveyorizing and package-handling devices generally. There was obvious interest in shipping containers better designed from both structural and appearance standpoints.

The annual Protective Packaging and Materials Handling Competition attracted much interest. Entries in the seven different divisions of the competition were so excellent and so varied that the judges were unable, in some instances, to reach their decisions until just before the noon deadline on the opening day of the show.

Groups 1, for corrugated and solid fibre boxes, and 3, for wirebound boxes and crates, attracted the largest number of entries. First, second and third prizes were given in each group, except that for export packages, which drew only four entries and one first prize.

The first-prize-winning entry in Group 2, a nailed wood box pack for airplane propellers, developed by K. Russell Colcord of United Aircraft Corp., was awarded the Harold Jackson Trophy as the export package offering the most satisfactory method of product protection against corrosion, while the third-prize entry in Group 1, a corrugated pack for an aircraft carburetor, designed by Earl K. Gustin of Bendix Aviation Corp., won the Irving J. Stoller Award for outstanding achievement in the development of interior packaging.

The complete list of the prize win-

ners in the 1953 competition follows:

GROUP 1—CORRUGATED OR SOLID FIBRE BOXES

First—Henry H. Kelly, Westinghouse Electric Corp., East Pittsburgh, Pa., packing DB 15 circuit breaker. *Second*—Edward J. Lidgard, Packard Motor Car Co., Detroit, Mich., packing windshield glass. *Third*—Earl K. Gustin, Bendix Products Div., Bendix Aviation Corp., South Bend, Ind., packing aircraft carburetor.

GROUP 2—NAILED WOOD BOXES AND CRATES

First—K. Russell Colcord, Hamilton Standard Div., United Aircraft Corp., Windsor Locks, Conn., packing airplane propellor. *Second*—W. E. Christopherson, Douglas Aircraft Co., Santa Monica, Calif., packing C-54 demountable power-plant build-up. *Third*—Archibald E. Sparling, Sparling Bros. Machine Co., New Bedford, Mass., packing R & S Jetter.

GROUP 3—WIREBOUND BOXES AND CRATES

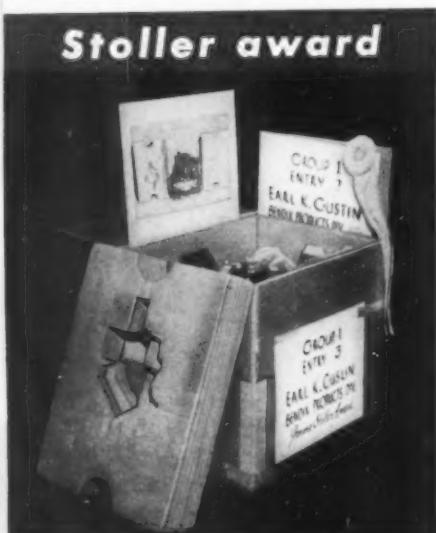
First—James B. Jones, Locke Dept., General Electric Co., Baltimore, Md., packing electric power switch-bushing assembly. *Second*—Earl Forsberg, Ohio Chemical & Surgical Equipment Co., Madison, Wis., packing sterilizer. *Third*—W. Morneweek and L. Flynn, Ford Motor Co., Engine & Foundry Div., Dearborn, Mich., packing industrial engine.

GROUP 4—CLEATED PANEL BOXES

First—Eugene Wald, Allen B. DuMont Laboratories, Inc., Clifton, N.J., packing stabilizing amplifier. *Second*—Louis W. Krombein, Ruslander & Sons, Inc., Buffalo, N.Y., packing beverage refrigerator. *Third*—Charles E. Swanson, Art Metal Construction Co., Jamestown, N.Y., packing steel desk.

GROUP 5—GENERAL

First—Julius J. Puchy, Weston Electrical Instrument Corp., Newark, N.J., packing navigational aircraft-instrument mechanism. *Second*—John J. (This article continued on page 206)



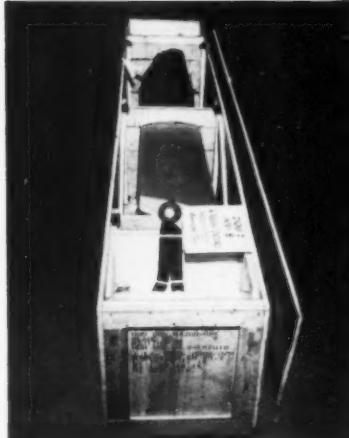
INTERIOR PACKAGING was the feature for which Earl K. Gustin of Bendix won trophy for outstanding achievement in this pack for a \$1,200 aircraft carburetor. Laminated, die-cut corrugated pads brace and cushion the carburetor, which is enclosed in a polyethylene bag. Packaging cost was cut 60%. This package also won third place award in Group 1—Corrugated or Solid Fibre Boxes.

Blue ribbon winners in their groups



FIRST PRIZE, Group 1 Corrugated or Solid Fibre Boxes

Entered by Henry H. Kelly, Westinghouse Electric Corp. Product: DB15 circuit breaker; warehoused and shipped direct to user. Advantages: lower cost, greater product protection, keeps product clean; no damage claims or complaints; costs reduced about 33% from formerly used wooden crate. Old packing cost \$1.75, present packing cost \$1.17. Package dimensions: 18 by 16 $\frac{1}{4}$ by 19 in. Contents weight: 50 lbs. Shipping weight: 58 lbs.



FIRST PRIZE, Group 2 Nailed Wood Boxes and Crates

Entered by K. Russell Colecord, Hamilton Standard Div., United Aircraft Corp. Product: propeller, shipped direct to user, both domestic and export. Advantages: freedom from damage and pilferage; distribution of weight—carried and/or supported on sides; loss from damage near "0" level since changing to container. Package dimensions: 138 5/16 by 22 by 25 in. Contents weight: 700 lbs. Shipping weight: 1,150 lbs.



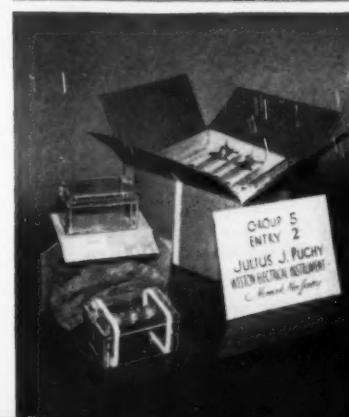
FIRST PRIZE, Group 3 Wirebound Boxes and Crates

Entered by James B. Jones, Locke Dept., General Electric Co. Product: electric power switch-bushing assembly; warehoused at manufacturer's in temporary storage, then shipped to customer, who unpacks, inspects, tests and repacks unit in same container and stores it outdoors until needed. Advantages: 42% reduction in packing and shipping cost; readily packed, easy to handle and unpack; can be repacked in same container for storage; no loss or damage complaints since used; unit cost of packing reduced from 92 to 59 cents and gross weight per unit from 60 to 30 $\frac{1}{2}$ lbs. Package dimensions: 20 by 20 by 25 $\frac{1}{2}$ in. Contents weight: 100 lbs. Shipping weight: 122 lbs.



FIRST PRIZE, Group 4 Cleated Panel Boxes

Entered by Eugene Wald, Allen B. DuMont Laboratories, Inc. Product: stabilizer amplifier; warehoused, shipped direct to user, interplant, domestic and export. Advantages: stopped concealed damage; rapid packaging; identification without uncrating; complete shock mounting; 100% reduction in damage, 20% labor saving. Cleated panel box with two sides of metal screen backed by vinyl plastic film. Top and bottom of box employ strip of rubberized-wood product as shock absorber. For lateral protection, extruded rubber molding is placed on chassis edges. Package dimensions: 22 by 13 $\frac{1}{4}$ by 14 $\frac{1}{4}$ in. Contents weight: 35 lbs. Shipping weight: 48 lbs.



FIRST PRIZE, Group 5 General Classification

Entered by Julius J. Puchy, Weston Electrical Instrument Corp. Product: navigational aircraft instrument mechanism, usually handled by motor truck interplant from assembly area about one mile to shipping department, then shipped by domestic carrier to user; sometimes stocked or warehoused in plastic container. Advantages: aluminum mounting stand designed as holding device in shipment is used in assembly and handling by assembly department; visibility of mechanisms in transparent polystyrene container results in more careful handling; easier unpackaging without special tools; aluminum mounting plate used again in customer's plant; 69% savings in material and labor cost. Package dimensions: 7 $\frac{3}{4}$ by 7 by 6 $\frac{1}{2}$ in. Contents weight: 10 oz. Shipping weight: 32 oz.



FIRST PRIZE, Group 6 Export Containers

Entered by Alan Cohen, Steiner Plastics Mfg. Co., Inc. Product: U.S.A.F. navigator's observing dome, shipped direct to user. Advantages: new container 50% cheaper. Dome has limited shelf life due to rubber gasket and must be inspected in storage. Formerly inspection destroyed container; with new box, only three wires are bent and unit slips out. Complies with MIL-B-107A. Package dimensions 3.2 cu. ft. displacement. Contents weight: 20 lbs. Shipping weight: 38 lbs.

FIRST PRIZE, Group 7 Materials Handling

Entered by W. H. Richardson, Driscoll Wire Co. Product: strand material (steel wire), shipped by domestic carrier direct to user; also interplant. Advantages: "pay-off barrel" provides means to store, ship and dispense product without separate reels, spools, etc.; about 500 lbs. of wire can be positioned for uninterrupted operation; damage and corrosion loss reduced about 20%. Package dimensions: variable, but commonly 19 in. in diameter, 30 in. high. Contents weight varies—300 to 600 lbs. if steel wire. Shipping weight: about 22 lbs. over net weight.



Looking for a better package? Stop right here!

To the Goodyear Packaging Engineer, every product is a special problem, requiring special treatment. That's why he has been so successful in designing PLIOFILM wraps that provide better packaging for so many different applications.

PLIOFILM is transparent, strong, extremely air-moisture-resistant. It

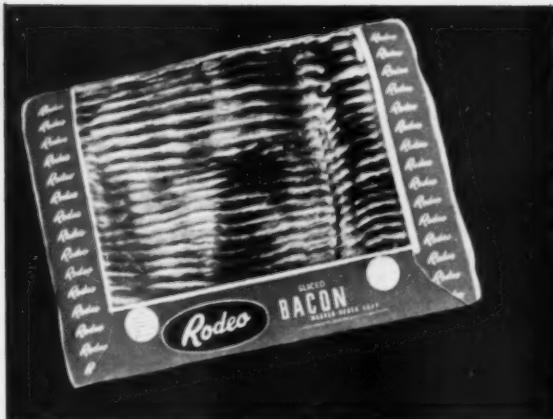
prints clearly, handles easily in packaging machinery. And its yield is so great, no other film supplies as much protection per pound. Why not get in touch with the Goodyear Packaging Engineer? He can help fashion a PLIOFILM wrap that's tailor-made for your product. Write: Goodyear, Pliofilm Dept. L-6418, Akron 16, Ohio.



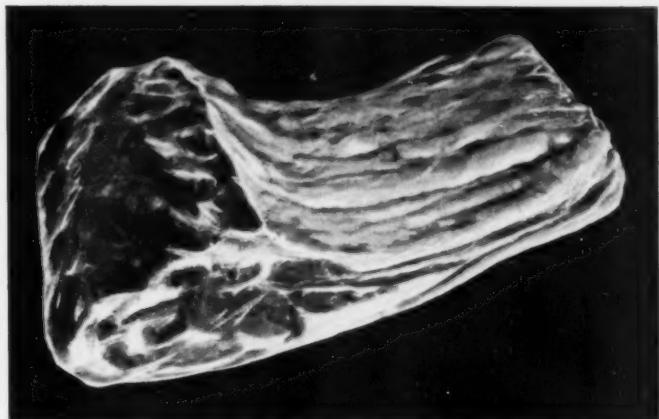
GET TO KNOW THE MAN WHO KNOWS YOUR PROBLEMS

Got a tough packaging problem? A phone call or letter to the Goodyear Packaging Engineer might provide just the answer you've been looking for. Why not try him?

Pliofilm, a rubber hydrochloride—T.M. The Goodyear Tire & Rubber Company, Akron, Ohio



BETTER SALES APPEAL. PLIOFILM insures a tight package that won't shrink or stretch when exposed to showcase moisture.



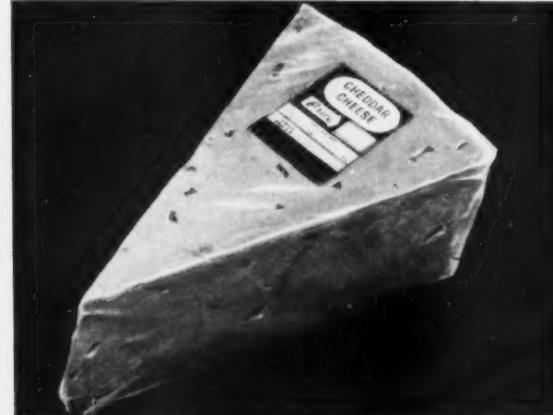
BETTER BLOOM RETENTION. PLIOFILM preserves the natural bloom of fresh meat, seals in juices and flavor.



BETTER MOISTURE PROTECTION. PLIOFILM is so moisture-resistant, it safely seals pickles, sauerkraut in their own brine - without danger of leakage.



BETTER FLAVOR PROTECTION. The PLIOFILM liner safeguards coffee taste and aroma by letting carbon dioxide out, retarding admission of flavor-stealing oxygen.



BETTER UNIT SALES. PLIOFILM made it practical to package natural cheese in small consumer-size units - boosting sales, eliminating waste.

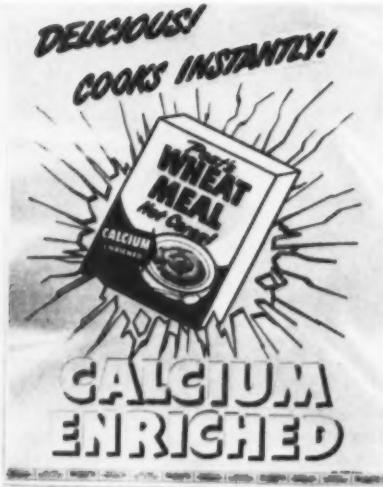


GOOD THINGS ARE BETTER IN

Pliofilm

3-way protection against
air, moisture, liquids

We think you'll like "THE GREATEST STORY EVER TOLD"—
every Sunday—ABC Radio Network—THE GOODYEAR TELE-
VISION PLAYHOUSE—every other Sunday—NBC TV Network



Smashed glass?—look again

Simulating a smashed window with the package breaking through the pane, this point-of-purchase display sign rivets attention to Post's Wheat Meal Hot Cereal. Passers-by, unable to distinguish the transparent sign from the actual store window, register a sharp double-take. This illusion is created for Posts Cereals Div. of General Foods Corp. by the use of a transparent sign measuring 18½ by 23½ in., printed in brilliant shades of red, blue and yellow. Through the jagged lines which resemble a shattered window pane appear a box of Post's Wheat Meal reproduced in full color.

For a second product, 40% Bran Flakes, Post employs a similar transparent acetate streamer to promote the new giant-size package of this cereal. This sign employs a circular price patch which the retailer can easily fill in with a china-marking crayon.

These transparent signs are mounted without gum, glue or tape; two protective strips on the face of the sign are removed and the pressure-sensitive areas laid open are pressed against the plate glass.

CREDIT: "Goodstix" display signs, Goodren Products Corp., New York.

DISPLAY

Two new display functions for the folding carton

The use of economical folding cartons as dispensers—one even with an honor-system coin slot—is indicated by two interesting examples in totally different product fields. One demonstrates how a plastic soap-powder carton dispenser called Spoon-a-matic works. The other is a vendor for penny packages of Peanut Butterbone candy. Both occupy little space.



Medco Products Co.'s plastic soap-powder dispensers packaged in a folding carton resembling a soap-powder box, has one Spoon-a-matic dispenser displayed at the top to show its use on a detergent carton. A pull-out door on the side enables display of 11 dispensers packed inside. The dealer needs only to tear the perforated edge, pull the drawer forward to display and sell the units.

Peanut Butterbone candies packaged in the "Jr." Candy Vendor and distributed by Thomas & Dunn, Inc., feature a window of clear, transparent acetate film which allows full view of the contents. This silent salesman operates on the honor system, with no attendant required. The customer simply inserts a coin into the slot and picks up the candy. The next bar automatically drops to the dispenser's delivery point. An inner compartment holds collected coins.

CREDITS: Candy dispenser carton, Bruce Carton Co., Memphis, Tenn., using Celanese Corp. of America acetate. Spoon-a-matic carton, Robert Gair Co., Inc., New York.

Beer packs for ladies only

Beer specially packaged and specially brewed for women is one of the newest merchandising ideas in the beverage industry. Introduced by the Storz Brewing Co., this new Storz-ette beer is being market tested in San Diego through Milford Co., its exclusive distributor. The dainty 8-oz. cans in which the beer is packaged is called "queen size." Cans are packed in a compact four-can carrier called the "Princess-Pak." Point-of-sale promotion includes the full-color display cards illustrated, which are designed to be attached to shopping carts in which the cans are jumble displayed. The lithographed metal cans feature a full-color orchid on the side and on the lid. Background is white with orchid and orange dots. The label area has the Storz-ette name in green. The 8-oz. size is used, according to the company, because "women have felt standard sizes too large for a serving." The beer is "calorie controlled" and free of the bitterness of most beers, Storz reports, to appeal to women.

CREDITS: Display cards, Charles L. Puckett, Inc., Chicago. Cans, American Can Co., New York. Four-can carriers, Morris Paper Co., Chicago.



GALLERY

Alka-Seltzer scores a touchdown for winter remedies

Miles Laboratories, Inc., uses the "touchdown" theme in promoting its Alka-Seltzer during the fall football season. The central unit of this window display is a lithographed card illustrating in full color two of the younger set playing football. The product name is boldly shown at the top, while the bottom of the card carries a reproduction of the Alka-Seltzer package and trade character. Jumbo Alka-Seltzer cartons surround the center piece. Other products made by Miles Laboratories are promoted by the side pieces. These include the geometrically designed easel-backed cut-outs of counter merchandisers, one for One-A-Day Multiple Vita-

mins and the other for Tabcin, a cold and hay-fever remedy. At either side of the window arrangement illustrated are huge replicas of One-A-Day Vitamin cartons, to enhance consumer product identification.

CREDIT: Display, Forbes Lithograph Mfg. Co., Boston.



Four basic labels can
be turned into hundreds
by economical imprinting
that solves
inventory headaches

In-plant labeling

How in-plant imprinting can aid in clearing up the dizzy confusion of astronomical and costly inventories of pre-printed labels for firms that manufacture and package hundreds of variations of the same type of product is being demonstrated by The American Hardware Corp., New Britain, Conn.

The astonishing total of some 540 different labels for lock hardware already has been reduced by this company to a basic four labels pre-printed in red with imprinting of the hundreds of the variables in black right in the plant on pressure-sensitive labels in roll form that completely eliminate the old-fashioned glue pot because they can be applied directly to the cartons by an electric dispensing machine.

Further economies and efficiencies have been achieved by the installation of automatic carton-forming machines, which permit the labels to be applied directly on the cartons as they

come from the carton-forming machine ready to be filled.

American Hardware's starting point for the program was in its P & F Corbin and Russell & Erwin Divisions. The heavy-duty line of locks made by these divisions indicated how involved labeling may become. Until the new packaging procedures were put into effect, the corporation had to keep in stock 135 different pre-printed labels to cover the variables of catalog number, end use, finish, metal and an illustration of how the lock was to be used. The 135 was doubled because of the firm's two brand names, Russwin and Corbin. The number had to be doubled again to cover two styles of knobs for both brands. This made a total of 540 different labels. An almost constant liaison had to be maintained between the company and a string of printers to handle orders, billing, proofreading and the inevitable errors that crept in, sometimes impos-

sible to correct after delivery of the labels.

These pre-printed labels necessitated involved handling in the production area where 10 large storage compartments, each holding 120 bins of labels were required. And, despite these inventories, there were still those unfortunate days when a particular label was out of stock.

This once-complex labeling system has now become unnecessary by standardizing on one pre-printed, basic, pressure-sensitive label for each brand, covering such permanent data as brand and maker's name, address and identification of the product as a lock. All variable information is imprinted at the plant as needed, at the rate of about 15,000 a week on a standard, simple type of press.

When completely pre-printed labels were used, the corporation had to purchase hundreds of printing plates for all the variations. Now these are re-



BASIC INFORMATION included on all labels is pre-printed, while infinite variations of catalog number, end use, type of metal, finish, an illustration of how the product is to be used, etc., may be quickly imprinted in the plant as needed simply by a change of slugs.

duced to a few slugs, quickly locked into position on the imprinting machine. Operating at a speed of 84 a minute, the imprinting machine continually works ahead of production schedules so that production is assured of adequate quantities when wanted. Sudden changes in design of finish of a lock no longer mean destroying thousands of pre-printed labels in inventory and ordering new plates. At most, only a roll or two of the new labels might be wasted and even that's a slight chance.

Through the use of pressure-sensitive labels in roll form instead of the water-glue type, the firm not only speeds labeling with an electric dispenser, but can, as in the case of its standard-duty lock, integrate the equipment into a mechanized production line, reported to be unusual for this type of hardware manufacture.

A description of the line for the standard-duty lock shows how the company has progressed from the days of forming cartons by hand and spotting the pre-printed labels with the help of a glue pot. The standard-duty lock, newest of the corporation's products, marketed under its Corbin and Russwin trade names, is the first to start out fresh with the simplified labeling system and the highly mechanized operation including the automatic carton former and the electric dispenser. Were it not for the revised labeling system, according to the company, the new lock would require about 70 different labels for each of the two brands, instead of the two basic labels, now in use.

The operation begins with carton forming on a machine running at speeds up to 100 a minute. With top tucks up, the cartons are delivered by conveyor to an operator in charge of the electric label dispenser. The operator forms a corrugated insert around a wooden mandrel and inserts it in the carton, adds an instruction sheet, takes one of the pressure-sensitive labels that has been delivered from the automatic electric dispenser and applies it to one end of the carton. The dispenser obviously has a time-saving advantage over the former method of brushing individual labels with water glue. The dispenser automatically peels a backing from the adhesive surface of the label, making it ready for immediate application.

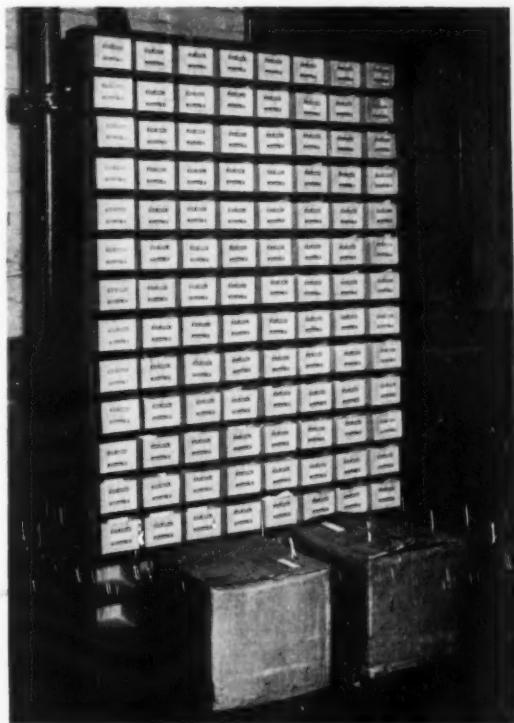
Passing down the line, the cartons dovetail with the production of the locks themselves. In other words, in



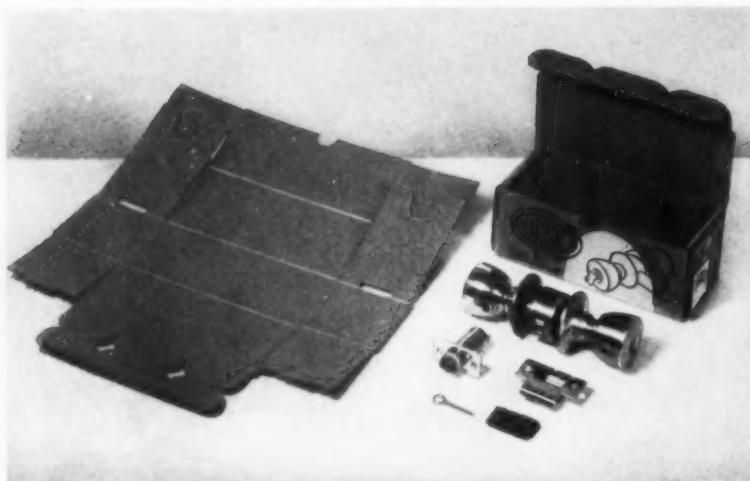
PRESSURE-SENSITIVE TYPE
labels are quickly applied by
means of an electric dispenser,
which peels the backing from the
adhesive surface, making it ready
for putting on pre-formed carton.



GONE is this old, slow method
of applying labels to the con-
tainer with brush and glue pot.



TEN FIXTURES such
as this were formerly
required to inventory
some 540 variations
of pre-printed labels.
Now, equivalent supply
of two basic labels,
imprinted as needed,
are stored in two ship-
ping cases shown in
the foreground.



ONE-PIECE corrugated folding carton with a cradle for lock replaces the former two-piece chipboard construction with corrugated insert and results in a savings to the company of 2½ cents per carton.

what can be described as a straight-line packaging and production system, the cartons flow from one end to meet the finished product, assembled from the other end, in the center. It is here that operators fill the cartons with the components of a lock including screws, latch, template, strike and key.

Labeling is no longer regarded as a complicated problem at American Hardware. When a certain style of lock is being run, the operator in charge of labeling receives her supply straight from the imprinter. Labeling can begin within the few moments it takes to load the dispenser.

The heavy-duty locks are not packaged on the same production basis as

the standard-duty line. Most of the orders are special contract jobs with too little volume to make a production line feasible.

However, along with the introduction of the new type of label, the company succeeded in making significant savings in packaging costs. This was done by discarding an unprinted chipboard container of two-piece construction used in conjunction with a corrugated insert in favor of a one-piece, printed, corrugated folding carton which can be formed manually with a cradle for the lock.

Savings, between former carton and labor costs, amount to about 2½ cents a carton, the firm reports. The at-

tractively printed carton provides excellent merchandising opportunities and, according to the corporation, the product is better protected through all the channels of distribution without the cost and time disadvantages of interior packing.

Only one style of locks, the light duty, is packaged in cartons with pre-printed ends and requires no label. This lock, it is explained, is produced with only 25 variations for the two brands, thus requiring a total of only 50 printed cartons, a number viewed as comparatively small by the corporation. Locks are packaged on a production line similar to that for the standard-duty locks.

Pressure-sensitive labels, imprinting machine, electric dispenser, carton formers and improved production-line techniques are saving the American Hardware thousands of dollars a year in its label simplification program. The locks are reported to be only the first step in an ambitious program envisioned by the corporation to streamline the labeling of many other hardware products and to standardize, as much as possible, cartons and shipping cases for economical purchasing and use.

Using similar techniques, another company, the General Controls Co., has cut its inventories of printed cartons by 50%, according to the company. Formerly, more than a hundred different boxes were required to package the various automatic controls which were manufactured. This created the problem of segregating the box inventories according to use and took up a lot of valuable warehouse space. Now, a minimum of basic box sizes is maintained by size alone and these take only half as much storage space as was formerly required. Each box is labeled according to its contents as it is used with pressure-sensitive, pre-printed labels, some of which are color coded.



SHIPPING CASES carry strong trade and product identity. Light-duty lock carton (left foreground) is pre-printed label and all, because of smaller number of variations. A standard-duty lock carton (right) illustrates the new imprinted label.

CREDITS: "Kum-Kleen" pressure-sensitive labels and electric dispenser, Avery Adhesive Label Corp., 1616 S. California Ave., Monrovia, Calif. "Tickopres" imprinting machine, Markem Machine Co., 150 Congress St., Keene, N. H. "Kliklok" carton-forming machine, Bemiss-Jason Co., Douglas and Bay Rds., Redwood City, Calif. Folding cartons for light-duty locks, National Folding Box Co., Inc., P. O. Box 1004, New Haven 4, Conn. Corrugated cartons for heavy-duty locks, Container Corp. of America, 38 S. Dearborn St., Chicago 3.



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Sorbic acid as a mold inhibitor

A new, approved, non-toxic, fungistatic additive

for food-wrapper coatings. By DONALD P. SMITH and J. NORBERT ROLLIN*

The control of molds in foods becomes increasingly more important, and often more difficult, as better packaging protection and longer shelf-life requirements are developed. Foods such as meats, cheese, some bakery products, fruits, produce and spreads must be packaged in moisture-proof containers to prevent drying out. The interior of such packages quickly reaches high relative humidity and ideal conditions for mold growth are established.

This general need has fostered widespread and continuous efforts to develop general mold inhibitors suitable for use in food packaging. Progress in such general problems is best made by concentration on one immediate, clearly defined objective.

Our laboratory, over a period of many years, has evaluated a large number of materials for fungistatic activity, particularly pointed toward improved cheese packages. Cheese offers a clearly defined objective, a need of sufficient magnitude to warrant large expenditures, and cheeses of various types are convenient substrates for such testing. Furthermore, cheese is particularly suited for such screening tests because bacterial spoilage is limited by acidity or pasteurization (process cheeses) and the mold is a surface contamination and growth problem.

The proof of effectiveness is only one phase of package development and it is, therefore, proposed that this

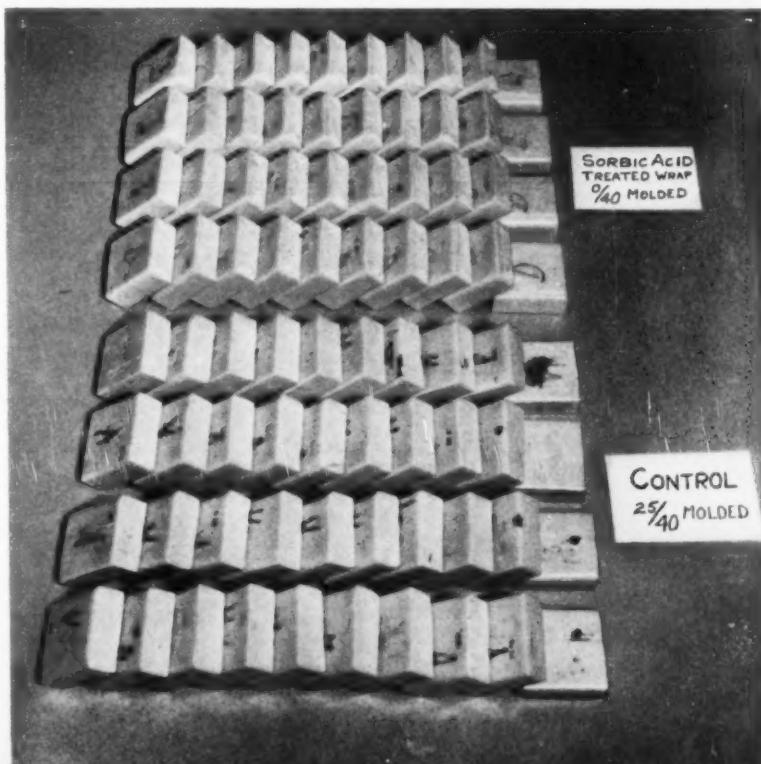
paper present a composite of selected procedures and results covering effectiveness, harmlessness, legal recognition, mechanism of fungistatic action and commercial testing. It is a rare opportunity to have available so complete a description on a new package development.

These factors which affect the usefulness of a newly developed material equally as much as its direct effectiveness should be included whenever possible in a practical technical report.

Screening of fungistatic agents

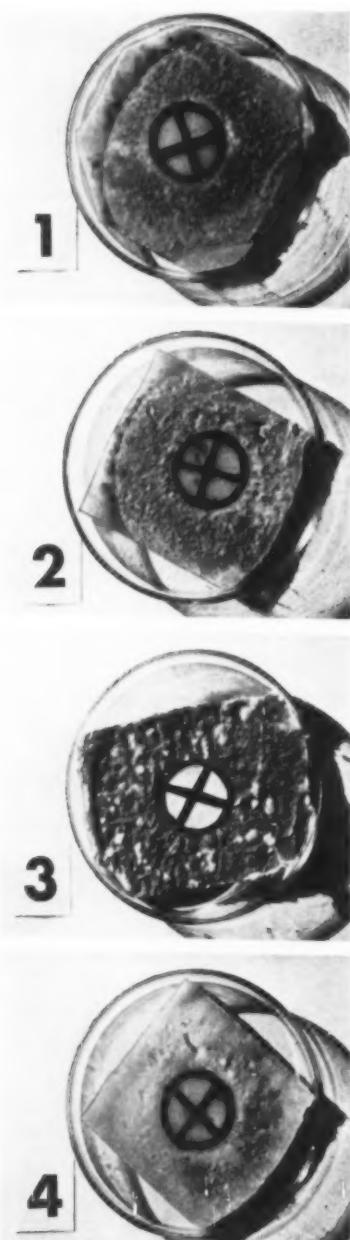
In the search for a new fungistatic agent many materials are secured and tested. The method used for screening is the application of approximately 0.1 gm. of the material to be tested evenly over the surface of a 40-sq.-in. wrapper of thermoplastic-coated cel-

I. AFTER 96 DAYS' STORAGE at 45 to 50 deg. F., wrappers treated with sorbic acid on the commercially packaged sliced process cheese are clean, while 62% of the control packages evidence mold growth.



*Both of Milprint, Inc., Milwaukee, Wis.

phane. The slightly tacky thermoplastic coating serves as a carrier for the material under test and is chosen for its ease of sealing, moistureproofness and transparency. Approximately $\frac{1}{3}$ lb. of process cheese is inoculated with a spray of cheese-mold suspension and then loosely wrapped in the test material. The package is sealed by joining



2. MOLD INHIBITION is shown under and adjacent to wrappers treated with sorbic acid applied (1) to sliced process American cheese, (2) to natural American cheese, (3) to cream cheese and (4) to brick cheese.

the coated sides under low heat and pressure.

Accelerated tests are run at temperatures of 70 to 75 deg. F. for comparisons only; longer storage periods at 45 to 55 deg. F. and 34 to 36 deg. F., simulating commercial conditions, are also run in most cases.

Under these conditions, cheese packaged with no inhibitor generally showed molding in three to four days at 70 to 75 deg. F., 14 to 16 days at 45 to 55 deg. F., and in 27 to 30 days at 34 to 36 deg. F. In one such test, eight out of 10 control samples molded when stored for 21 days at 45 to 55 deg. F., and none of the parallel samples of cheese packaged with sorbic-acid-treated wrappers was moldy in the same period of time.

Sorbic acid, U.S. Patent No. 2,379,294, was the one fungistatic agent in this series which proved acceptable in all the many qualifications. Of course, the vast number of failures must be omitted from this report.

Determination of amount required

When screening tests show that a material has promise of effectiveness, it is necessary to establish limits. The methods used are tests of varying amounts of inhibitor on the wrappers and direct addition to melted process cheese.

In the wrapper tests, amounts of sorbic acid equal to 0.625, 1.25, 2.50 and 5.0 gm. per 1,000 sq. in. were applied to the coated cellophane wrappers. Then cheese was inoculated, wrapped and stored at 45 to 55 deg. F., as in the screening tests. The results shown in Chart I reveal retardation of molding in the lower con-

centrations, but that 2.5 to 5 gm. of sorbic acid per 1,000 sq. in. of wrapper is required.

Perceptibility-effectiveness ratio

To determine the tolerance between minimum concentration of additive which would give perceptible taste or odor and the amount required to inhibit mold growth, varying amounts of sorbic acid were dissolved in melted process cheese. The cheese was cooled and sliced. Some slices were placed in culture dishes and inoculated with spray of cheese mold. These samples were stored at 45 to 55 deg. F. for 17 days. Other slices were code numbered at random and tasted or smelled critically by volunteers for minimum taste and odor perception.

The results of these tests are summarized in Table I. It is apparent that 0.05% sorbic acid effectively inhibits mold growth on process cheese while 0.2 to 0.5% is the threshold of taste or odor perception. This gives a four to 10 times tolerance ratio. In practice, only the outer surface of a piece of cheese is required to reach fungistatic concentration and this is soon diluted following migration of the sorbic acid into the cheese. Other tests using various types of cheese and high amounts of sorbic acid on the wrapper confirm this favorable ratio.

Harmlessness

Many compounds passed the effectiveness screening; many less passed the perceptibility-effectiveness ratio, but the most stringent qualification is harmlessness to consumers. At the request of Carbide & Carbon Chemicals Co., Dr. Henry F. Smyth, Jr., and

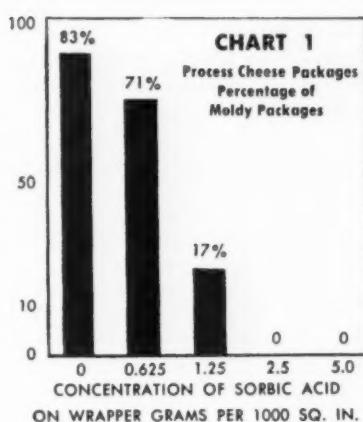
TABLE I—PERCEPTION-EFFECTIVE CONCENTRATION OF SORBIC ACID IN PROCESS CHEESE

Inhibitor concentration	Sample 1	Sample 2	Taste-perception observer				Odor-perception observer	
			1	2	3	4	1	2
Control	+++	++	-	-	-	-	-	-
0.005%	++	++	OK	OK	OK	OK	-	-
0.010	+	-	OK	?	OK	OK	-	-
<i>Effective limit</i>								
0.050	-	-	OK	?	OK	OK	OK	OK
0.10	-	-	OK	OK	OK	OK	OK	OK
0.15	-	-	OK	?	OK	?	OK	OK
0.2	-	-	?	?	OK	OK	OK	OK
<i>Detectable limits</i>								
0.5	-	-	D	D	OK	?	?	?
1.0	-	-	D	D	D	OK	D	D

NOTE: +, moldy; -, not moldy; OK, flavor or odor good; ?, questionable change; D, detectable flavor or odor.

Carroll S. Weil at Mellon Institute were running a series of feeding tests which included sorbic acid in the diets of white rats at the same time that the cheese tests were in progress. At the University of Southern California, Dr. Harry J. Deuel and associates for many years had been interested in the metabolism of fatty acids in their extensive studies of fat metabolism. The potential value in cheese wrappers of sorbic acid, a fatty acid related to caproic acid, led Dr. Deuel to review his earlier studies and, at the request of Best Foods, Inc., to run an extensive series of rat feeding tests comparing the metabolism of sorbic acid with caproic acid, and the toxicological picture of sorbic acid with that of benzoic acid. The results from both laboratories showed that sorbic acid was less toxic than benzoic acid and that at least 5% of the weight of the diet could be consumed without any evidence of abnormality. Sorbic acid followed the identical pathway of metabolism as the naturally occurring caproic acid, both being metabolized to carbon dioxide and water.

At the request of Dr. A. J. Lehman of the Pharmacology Div. of the Food and Drug Administration, additional feeding tests with dogs were undertaken by Dr. Deuel at the University of Southern California and investigations of the methods of estimation, migration and mode of action of sorbic acid in cheese were carried out by the Best Foods Laboratories (Bayonne, N. J.). Tests at the University of Southern California showed that dogs, like the white rats, can utilize at least 5% of their diet (on a moisture-free basis) as sorbic acid when the acid is carried with cheese in their diet. The over-all studies showed that B-un-



saturated fatty acids, of which sorbic acid is a member, are metabolized by the same process as are the normal saturated fatty acids and thereby are of nutritional value. Thus, in essence, by using sorbic acid, we have one food serving to protect another against mold spoilage.

Legal recognition

The proof of harmlessness in that sorbic acid is metabolized in the same manner as naturally occurring caproic acid is accepted by the Food and Drug Administration and temporary permits for commercial use have been approved.

Mechanism of fungistatic action

With the above proof that sorbic acid is assimilable as a food, the mechanism of mold inhibition may seem mysterious. The searching questions by members of the Food and Drug Pharmacology Div., samples from this laboratory and their own extensive analyses and studies have led Drs. Melnick, Luckman and Gooding of Best Foods, Inc., to a clear-cut

explanation. They noted that the first step in normal metabolism of saturated fatty acids is dehydrogenation to yield the B-unsaturated fatty acid. The concentration of sorbic acid applied to the surface of cheese effectively constitutes an excess of the product of an essential enzymatic process. The excess inhibits further dehydrogenation, and inhibition of the dehydrogenation enzyme system in molds is held responsible for the fungistatic activity of sorbic acid. Analyses and packaging tests show that high mold concentration or, in other words, high mold enzyme activity, tends to consume the sorbic acid, and limited fungistatic activity is apparent.

Packaging experience

The screening and packaging tests described above were accompanied by numerous other laboratory packaging tests, but the main evaluations must be done under commercial conditions.

In Table II is shown a summary of tests of ½-lb. sliced process cheese packages which were hand packaged in a commercial operation, with sorbic-acid-treated wrappers substituted for plain wrappers of a similar type. The samples were shipped for two days, then stored at 34 to 38 deg. F. The control samples molded slowly, showing good wrapping techniques, but after 90 days, 56% of the controls and none of three equivalent sets of sorbic-acid-treated samples were moldy. Fig. 1 shows the control samples and one set of the treated samples.

In another test of sliced process cheese, 252 samples were packaged on a standard sliced-cheese wrapping machine; 36% of the controls molded as compared to less than 2% of the treated samples. This test ran for over nine months and the 2% failures were due to mechanical deterioration as a result of repeated handling.

Conditions of packaging

The above tests show that sorbic-acid-bearing coated cellophane wrappers give extra protection against molding, but it is apparent that certain conditions of packaging must be observed.

(1) Initial mold contamination of the cheese must not be excessive prior to packaging in order to maintain the proper sorbic acid to enzyme ratio to inhibit the enzyme action.

(This article continued on page 184)

TABLE II—COMMERCIALLY HAND-WRAPPED SLICED PROCESS AMERICAN CHEESE

Wrapper*	No. of samples	% moldy with storage at 34 to 38° F.					
		8 days	18 days	27 days	36 days	56 days	90 days
A—Plain coated cellophane—control	43	0.0	0.0	9.3	11.6	20.9	56
B—Same as A, plus Type-B sorbic acid 2.5 gm./1,000 sq. in.	48	0.0	0.0	0.0	0.0	0.0	0.0
C—Same as A, plus Type-C sorbic acid 2.5 gm./1,000 sq. in.	48	0.0	0.0	0.0	0.0	0.0	0.0
D—Same as A, plus Type-D† sorbic acid 2.5 gm./1,000 sq. in.	38	0.0	0.0	0.0	0.0	0.0	0.0

*Wrapping material was cellophane coated with a heavy thermoplastic coating identified as Klingseal, manufactured by Milprint, Inc., Milwaukee, Wis.

†The particular high-purity sorbic acid and method of application has been given the trade name "Milpure" to aid in relieving the confusion between sorbic and ascorbic acids.

Flexible WVP barriers

A review of the more recent criteria governing their selection for military packaging applications. By PHILIP A. GELBER*

There is an old saying that there are many ways to skin a cat. Paraphrasing, there are many means of packaging available for selection by the packaging engineer. Also, the fact that different methods can and should co-exist is amply demonstrated daily in military packaging as well as in the field of consumer packaging.

Recently, while doing "research" in the kitchen, my young son who had been told that his daddy works with packages, asked in a troubled voice, "Why do we have some soups in cans and others in bags?" To a six-year-old, the answer that cans are better for some soups and bags better for others appeared to suffice. However, the adult packaging engineer is not so easily satisfied. He needs to know where

and why cans or bags are "better."

Mustin, in a recent article, presented the criteria for selection of rigid barriers for military packaging (1)†. The purpose of this article is to present information on flexible waterproof barriers for use in military packaging.

Mustin defines flexible barriers as those "which tend to conform, even if roughly, to the shape of the contents." This definition succinctly encompasses a major use advantage of these materials, i.e., the ability to package with the minimum sacrifice in over-all cubage. However, this carries with it the requirement on the material that it remain a protective barrier after it has been applied and handled.

The use of water-vaporproof barriers for protective packaging is predicated on the ability of the material

to prevent the ingress or egress of water, in various forms, into or out of the interior of the package. This is based on the established principle of achieving corrosion prevention and/or eliminating deterioration by controlling humidity inside a pack. While maintaining moisture inside a pack is critical for many military items, particularly in the field of sustenance items, this article will deal primarily with the use of barriers for the elimination of the ingress of moisture, though many of the considerations are mutually applicable.

Let us now explore the ramifications of the dual requirement of flexibility and barrier properties. For these purposes reference is made to the coordinated, unified military specification for flexible water-vaporproof barrier materials, MIL-B-131B (2).

The materials available under this specification all include aluminum foil as a major component in the make-up of the sheet. While the water-vapor transmission rate through undisturbed aluminum foil, even in thickness of 1/1,000 of an inch or less, is so low as to be difficult to measure, as pointed out by Lancaster (3), the foil is subjected to pinholing as soon as it is folded, flexed or creased.

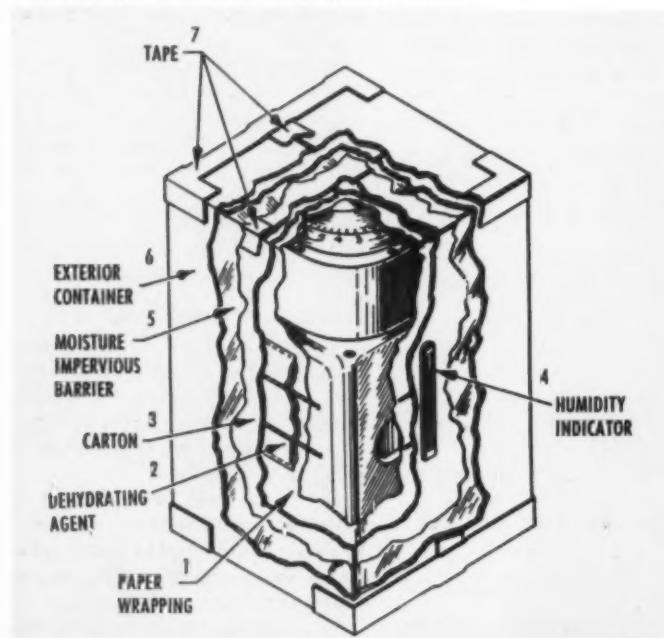
To overcome this shortcoming of the foil, the barrier manufacturing industry has incorporated plastic on one or both sides of the foil. The use of the plastic, when done correctly, has minimized the effect of the pinholing of the foil on the transmission rate of the material and has also tended, in some cases, to modify the pinholing pattern of the foil. The use of plastic on the front (inside) face of the foil is also essential to provide heat-sealability characteristics needed for fabricating these barriers into complete envelopes, bags or containers.

An understanding of the significance of "when done correctly," in connection with the manufacture of barrier materials, is an essential prelude to a discussion of the use criterion of these materials. In a previous

*Head, Chemical Engineering Div., Aerautical Materials Laboratory, Naval Air Experimental Station, Philadelphia 12, Pa. The opinions expressed herein are those of the author and do not necessarily represent the views of the Naval Air Experimental Station or the Department of the Navy.

†Numbers in parenthesis identify references appended.

CARTON ASSEMBLY showing a typical military application of a moisture-impermeable (water-vaporproof) barrier.



article (4) and paper (5), experiences with some of the metal foil laminate type of barrier materials used during and immediately after World War II for military packaging were discussed. It was pointed out that as metal foil laminations, with transmission rates of 0.05 gm. per 100 sq. in. per 24 hrs. as determined by the then standard method of test (6), came into use as flexible barriers replacing transparent plastic films of nominal 0.25 gm. transmission rates, it was expected that the period between represervation would be greatly extended on packaged items in military stores. In many cases this was not borne out by service experience.

This should not be interpreted as meaning that the foil laminations did not do a good job, which would be far from the truth, but only that the high level of performance they were theoretically capable of producing was not being realized. It was therefore evident that the methods of test which predicted conclusions that differed from field experience were inadequate, resulting in the work at the Naval Air Experimental Station previously reported (4). This work resulted in the development of a flexing procedure for preparation of specimens prior to determining the transmission rate of the material (2), (4). It was also demonstrated in this work that the method developed correlated with at least certain service applications of flexible barriers.

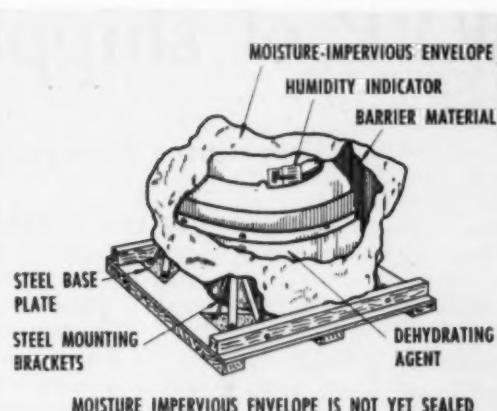
There is now assurance that when we speak of a low transmission rate water-vaporproof barrier material, it is so under conditions of use rather than just in the laboratory.

The importance of this concept is paramount. Many criticisms of the use of flexible barriers in the past are directly traceable to the fact that the barriers supplied were performing below the level the user had a right to expect from the information then available.

Mustin (1) recognizes this in presenting comparative figures for aircraft-engine preservation in flexible barriers and rigid metal containers by noting that the data on the corrosion of engines in flexible barriers covered an era of marginal material and that the comparison of the differences was not a true one for modern, greatly improved flexible barriers.

It is believed that much of the difficulty reported with bearings stored in flexible barriers was due to the

FLOATING BAG application is one of typical uses for moisture-impervious (water-vapor-proof) barrier materials. Diagram shows envelope not yet sealed.



MOISTURE IMPERVIOUS ENVELOPE IS NOT YET SEALED

poorer material previously available—material that could not be even moderately flexed in application without losing the ability to protect.

Assuming no specific requirement to the contrary, flexible water-vapor-proof barriers should be used for military packaging when they afford the cheapest means of obtaining the level of protection specified. First costs are important, but far from the whole story. The possibility of reducing cubage of the pack by use of flexible barriers has already been noted and reduced cubage means money saved in shipping and in storage.

The fact that the present barrier materials can be severely flexed without materially reducing their efficiency as a barrier makes it possible to achieve real savings in space in designing packages. However, as a word of caution, it is not good packaging practice to attempt to reduce volume by making the barrier material conform too closely to the shape of an irregular object, either by means of a vacuum or manually, since the danger of puncturing the barrier is increased. In many cases, weight of packaging is reduced, which contributes to savings in shipping cost. These features are particularly important in connection with the program for air transport of military supplies and equipment.

With the newer barriers, there is also a certain amount of re-use value obtainable. The requirements in Specification MIL-B-131B are predicated on at least two use cycles for the barriers in the supply pipe line. While it is not normally economically feasible to return "empties" in the case of flexible barrier containers, it now should be perfectly safe to return parts for overhaul in these containers.

Another important factor in cost analysis is the storage space required for the packaging material prior to use. Obviously, flexible barriers are suited for storage in a minimum amount of space, being stored either in roll stock or as flat, stacked containers. In this connection, the revised blocking requirement of MIL-B-131B assures the ability of containers made of the newer materials to be stacked flat, face to face, without danger of damaging the containers.

Flexible barriers are normally preferred for packaging lines handling miscellaneous items of random size and shape such as are encountered in many military operations, since containers of suitable size can be easily fabricated as needed with a minimum of equipment.

From the foregoing, it is apparent that there is a definite place in the military packaging picture for flexible barriers.

It is too soon to have adequately documented performance data on the newer barrier materials. Early indications are that they are fulfilling their function in a thoroughly satisfactory manner.

However, as more knowledge is gained and newer materials are developed, it is anticipated that even further improvements can be made in the materials specified for military packaging. It is toward this end that the specification covering these materials is constantly being reviewed.

Like all packaging materials, the flexible barriers must be used correctly to obtain adequate performance. Two particular aspects are considered worthy of mention here. First, the seals made on flexible barrier containers must be made carefully to in-

(This article continued on page 203)

WVP of shipping containers

Procedures for evaluation by the cycle method are detailed in a tentative method adopted by ASTM



TECHNIQUE for weighing receptacle with desiccant at start and at completion of each cycle. Specimen is reclosed during weighing procedure to prevent entrance of moisture. Weighing is conducted as rapidly as possible.

ILLUSTRATIONS, CONTINENTAL CAN CO.



RETURN OF DESICCANT receptacle to specimen at conclusion of weighing cycle. Specimen is opened only momentarily.

The rate of water-vapor permeability of large, bulk shipping containers is often as critical as that of small unit packages, yet no standard, reproducible method of testing large containers—too large or too heavy to be placed in conventional WVP cabinets—has been recognized. The following tentative method, entitled "Water-Vapor Permeability of Shipping Containers by Cycle Method" (ASTM Designation: D1276-53T), was adopted at the recent annual meeting of the American Society for Testing Materials and will be published later in the 1953 Supplement to the Book of ASTM Standards.

Scope

1. (a) This method covers two procedures for determining the water-vapor permeability of bulk shipping containers, as follows:

Procedure A for Reclosable Containers and

Procedure B for Containers Not Designed for Reclosing.

(b) The test may be applied to the container as packed, or after one or more performance tests such as drum, vibration, drop or actual shipping tests, as required.

(c) For small shipping containers requiring greater accuracy in weighing, the water-vapor permeability may be determined in accordance with the Tentative Method of Test for Water-Vapor Permeability of Packages by Cycle Method (ASTM Designation: D 1251).*

Definitions

2. (a) A cycle is defined as one series of test atmospheres to which the test specimens are exposed. Normally one cycle will consist of one week of exposure to a temperature of 0 ± 5 deg. F., to be followed by three weeks of exposure at a temperature of 100 ± 2 deg. F. and a relative humidity of $90\% \pm 2\%$.

(b) Water-vapor permeability of container is defined for this test as the amount of water transmitted into the

* See 1952 Book of ASTM Standards, Part 7.

container from the test atmosphere during one cycle, while a desiccant is sealed within.

PROCEDURE A, FOR RECLOSEABLE CONTAINERS

Apparatus

3. (a) *Desiccant*—A desiccant having a powerful affinity for water and a high drying efficiency, that is, a low vapor pressure after absorbing a large amount of water, shall be used. The desiccant shall be in the form of small lumps that will pass a No. 8 (2380-micron) sieve[†] and be free from fines that will pass a No. 30 (590-micron) sieve.[†] Anhydrous calcium chloride and anhydrous magnesium perchlorate have been found suitable. When the test is made to determine the suitability of a specific container for a particular product, that product may be used inside the test specimen instead of the desiccant, in which case the specimen shall be filled to normal capacity.

(b) *Weighing Balance*—For weights up to 10 lbs., a suitable laboratory balance, sensitive to one ten-thousandth of the amount to be weighed, shall be used. For weights over 10 lbs., a device capable of weighing accurately to one one-thousandth of the amount to be weighed shall be used. When product tests are made, a regular laboratory balance and appropriate drying oven are required for making standard moisture determinations.

(c) *Receptacle for Desiccant*—A

[†] Detailed requirements for these sieves are given in the Standard Specifications for Sieves for Testing Purposes (ASTM Designation: E 11), 1952 Book of ASTM Standards, Parts 2, 3, 4, 6 and 7.

non-moisture-absorptive shallow receptacle shall be used for holding the desiccant within the container being tested. It shall be capable of holding the amount of desiccant required and shall be equipped with a cover that will rest on the top rim of the receptacle to protect the desiccant from picking up moisture while being weighed.

(d) *Test Chamber*—A test room or cabinet provided with temperature and humidity controls that will allow conditioned air to circulate continuously around the specimens under test. The conditions in the chamber shall be such that no condensation occurs on the specimens except during that portion of the cycle when the exposure is changed from a low temperature to a high humid temperature.

Test specimens

4. Test specimens shall be representative of the containers being tested and shall be closed and sealed in the normal manner. In using a desiccant, a sufficient quantity shall be chosen so that it will not become noticeably moist during the test and the minimum amount used shall be 1% of the maximum rated net-weight capacity of the container. When the product is used, the specimen shall be filled to its normal capacity and the moisture content of the product determined immediately before the start of the test.

Procedure

5. (a) Place the selected quantity of the desiccant in the receptacle, cover and, after weighing, immediately transfer into the test specimen. Uncover the receptacle and close and seal the specimen in the normal manner.

(b) Place the specimen in the low-temperature test room or cabinet (normally maintained at 0 deg. F.) for a period of one week. Follow immediately by three weeks of exposure to the high temperature and humidity (normally 100 deg. F., with a relative humidity of 90%).

(c) Make successive weighings of the receptacle at the completion of each cycle. It is suggested that the test be carried on for a minimum of three complete cycles. The weighing procedure, which should be conducted as rapidly as possible, shall be as follows: Remove the specimen from the test chamber, open, remove the receptacle and place the cover on the

receptacle. Temporarily close the specimen to prevent the entrance of moisture from the surrounding atmosphere. Weigh the receptacle, open the specimen and return the receptacle. Uncover the receptacle, reclose the specimen and return it without delay to the test room or cabinet. Continue until a constant rate of gain is attained, as indicated by at least three successive points in a straight line. The slope of this portion of the curve will furnish a measure of water-vapor permeability per cycle.

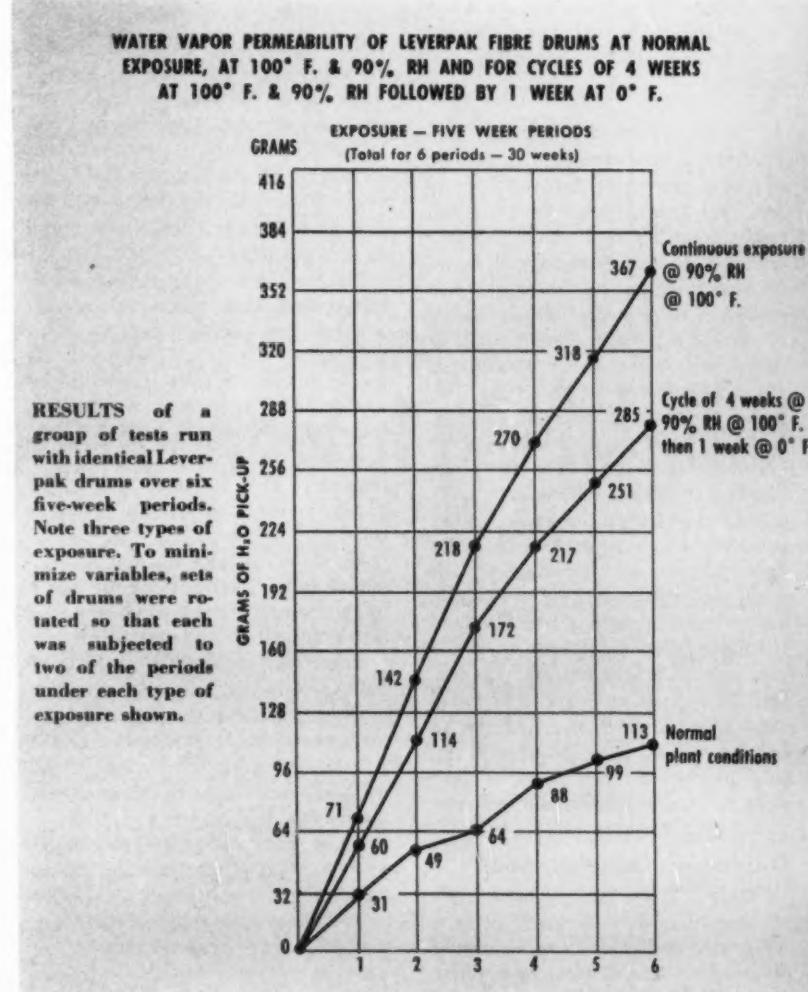
NOTE: In instances where tests are made in which specific products are used in lieu of the standard desiccant, a constant rate of gain may not be attainable. Therefore, for product tests, the container is filled to its normal capacity and the moisture content determined from a composite sample taken at the start of the test. The specimen

is subjected to one exposure cycle for a predetermined period, removed and the average moisture content determined from a composite sample taken at the end of this period. The test can be continued by immediately closing and resealing, after which the specimen is subjected to one or more additional cycles and the average moisture content determined from a composite sample taken at the completion of each cycle.

PROCEDURE B, FOR CONTAINERS NOT DESIGNED FOR RECLOSED

Apparatus

6. The apparatus shall consist of a desiccant, balance and test chamber in accordance with Section 3 (a), (b) and (d), respectively; also desiccant receptacles in accordance with Section (This article continued on page 196)



Questions & Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 575 Madison Ave., New York 22, N.Y. Your name or other identification will not appear with any published answer.

Caps stick to carton liners

QUESTION: One of our customers stores large inventories of cosmetic jars with enameled caps in a chip-lined carton of folding boxboard. In warm weather and due to the stack weight, the chip liner sticks to the jar caps. They are now placing a piece of waxed paper between the cap and the carton, but would prefer a carton with the interior treated to prevent sticking to the cap. Do you have any suggestions as to a board treatment or any other means of solving this problem?

ANSWER: Treatment of the chip liner of the boxboard or a lamination of special papers could solve this problem, but these appear to be rather costly remedies and could interfere with box-making operations. A board treatment such as dry waxing, a wax emulsion, or perhaps a surface sizing of one of the water-soluble cellulose derivatives might be of benefit and yet not interfere with normal box-making operations. However, the most logical answer would be to use a wax or similar coating on the cap. These coatings could be applied by a spray or roller just before the filled package is inserted into the carton. A hard wax or one of the many silicone compounds could prevent the sticking to the chip liner when used as very thin films and yet not affect the appearance of the cap. It is also suggested that you contact the cap maker to see if he could change the cap coating or lacquer for better resistance to contact with the chip liner under conditions of long storage, warmth and stack pressure.

Overcoming drag of materials

QUESTION: We use different kinds of lacquer and resin-coated papers, cellophane and other films in several kinds of automatic machines. There appear to be large differences in the

slip of these materials as they rub together or are pulled over the guide plates and formers of the various machines. Some of these materials give us trouble because they drag badly and cause web breaks or off-center seals.

How can we reduce this drag without changing the materials or buying new machines? Your suggestions for helping us solve this problem will be greatly appreciated.

ANSWER: Some resin-coated materials or films will develop enough static electricity to cause considerable drag in certain types of package-forming machinery. If static electricity is the problem, then there are many different kinds of static eliminators on the market that can be fitted to your machinery.

However, many plastic-coated materials show high friction when they are pulled over steel rollers or forming plates. If your machine contains many different rollers, these should all be of a type with ball-bearing mountings so that they turn readily and they should be kept clean and polished. The forming and guide plates should be kept clean and polished.

Chromium plating also is a definite benefit in preventing the build-up of foreign material and in reducing surface friction.

There still remains the problem of pulling of coated surfaces over each other and if this is not minimized by the use of a static eliminator, then it will be necessary to try some of the many different types of slip agents on the market.

These powders or sprays can be easily applied as the roll stock enters the package-forming machine. The use of a very small amount of the right type of powder or spray could eliminate the surface-to-surface friction on coated materials.

Elimination of static electricity

QUESTION: One of our clients has a problem in the packaging of a light, dry, granular product, which adheres to the surface of the container, apparently due to static electricity. We would like to know if there is any type of surface-treating material that will reduce the static charge on packaging materials.

ANSWER: There are many commercially available static eliminators on the market today which are very effective in eliminating the static from moving webs of paper or plastic films. These eliminators perform their function by different means, but generally they are mounted close to the moving web as it leaves the roll and are effective in removing the static charges which would interfere with package forming, wrapping, bag making, etc. However, if the static has developed inside a pre-formed bag or container during the filling of a light, dry powder, it is much more difficult to correct.

The possible answer to this problem would be to pass the product through a static eliminator before it goes into the filling spout. It would also be possible to use certain types of eliminators attached to the entering end of the filling spout so that the static could be removed from the inside of the container before the product was loaded. The use of moist air, either blown into the package before filling or surrounding the filling zone, might be beneficial in keeping down the amount of static, so that the product would not adhere to the surface of the container.

Unfortunately, there is no simple answer to a problem of this kind because both the product and the packaging material are involved and there may be severe limitations as to what can be done on the existing type of machine.



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Equipment and materials

A NEW CORRUGATED SHIPPER FOR HEAVY PRODUCTS such as nails, nuts and bolts, has been announced by the Hinde & Dauch Paper Co., Sandusky, Ohio. Called the Hevi-Duty box, the new container is said to cost about half that of the wooden keg it is designed to replace. It weighs only half the amount of kegs, which makes a difference in tare weight of about 4% of the loaded container.



It takes up to 25% less floor space. Stacking strength is reported excellent—a pallet which holds 21 kegs can transport 30 of the new boxes. Smooth sides, unbroken except for hand holes on two sides, provide ample space for display printing. The new container is constructed with weatherproof

adhesive and outside storage tests, according to H & D, have shown that weather damage to contents is much less than that found in kegs. The new box comes in two flat sheets, cut and scored, one of which folds to become the bottom, the other becoming a telescope top. One operator working on a standard horizontal arm stitcher can assemble 120 complete boxes per hour, the company reports. With the exception of a wire cutter to snip the wire holding the two parts together, no special handling equipment is needed. Three Hinde & Dauch competitors have been licensed to produce the box.

A NEW BENCH SLITTER AND REWINDER

for pressure-sensitive tapes, designed to do a professional job on short runs and special orders, has been announced by the John

Dusenberry Co., Inc., 271 Grove Ave., Verona, N. J. With this machine, known as the Model 618 AB, special widths of pressure-sensitive tapes (cellophane, cloth, paper, creped paper or polyethylene-coated paper) can be slit on short notice eliminating lead time from factory to users, reducing inventory and eliminating shelf spoilage. The machine has a 7-in. maximum rewind diameter, a 10-in. maximum supply-roll diameter, 6-in. maximum width and $\frac{1}{4}$ in. minimum cut.

Its maximum speed is 180 ft. per minute. The slitter requires no trim and all rolls are usable. Its simplicity of design enables women to be trained as operators. The machine is available in scissore cut or razor-blade cut. The slitter is mounted on a heavy sheet-steel cabinet that provides adequate storage and is portable.

A NEW LABORATORY EXTRUSION LAMINATOR

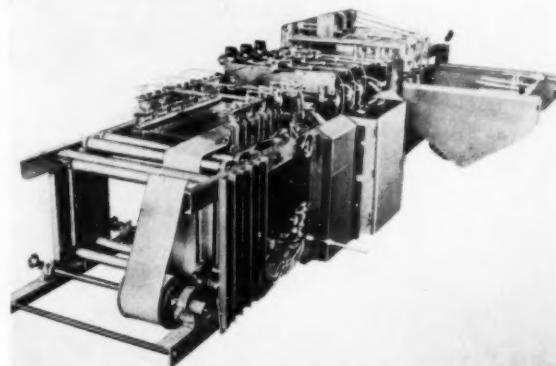
that is reported to enable manufacturers and developers of new products to make fast preliminary researches into many puzzling process problems at minimum cost and least loss of time has been announced by Frank W. Egan & Co., Bound



Brook, N. J. The unit is designed for 24-in.-wide paper or other webs for lamination with polyethylene or a number of other plastics. Equipment includes a $2\frac{1}{2}$ -in.-diameter extruder with heaters, die and drive, all of regular production size. The mechanical equipment is contained on a common framework housing two unroll positions, laminator, edge-trim slitters, winder, drive and complete instrumentation. The maker claims for the unit complete flexibility and fast change-over.

A HIGH-SPEED AUTOMATIC BAG MAKER

the latest machine to be produced under the Sentinel name by Packaging Industries, Montclair, N. J., automatically produces a pouch-type bag in a variety of sizes and from a number of different barrier materials. The manufacturer guarantees that every heat seal will pass all Government requirements when made at the proper sealing cycle on qualified materials. Despite



the high speed of the machine, this is possible because the sealing operation is intermittent. The machine is immediately adjustable for the three factors of a good heat seal—right temperature, pressure and dwell time—exactly the same as in the present Sentinel heat sealers for bench operation. This is a production machine for use where it is necessary to produce bags rapidly in large quantities to keep costs to a minimum. The basic Sentinel sealing principle is an integral part of the machine; only the automatic operation and the cut-off are new. Three sizes of the machine are offered. The largest model has two side sealers and three cross sealers. With additional attachments, this model can make six bags at a time in six different sizes. The next size has two cross sealers; the smaller model has one cross sealer. Bags from 3-by-3 in. to 24-by-36 in. can be produced on all three models; lengths longer than 36 in. are possible with extra attachments.

A NEW LINE OF FILLING AND PACKING MACHINES

manufactured by Hoffiger & Karg in Western Germany has been added to the sales program of Alfred Hofmann & Co., 635 59 St., West New York, N. J. The new line includes semi-automatic and automatic filling and packing machines, as well as fully automatic cartoning, check-weighing and stoppering and sealing machines. A "revolutionary development in automaticity," it is claimed, is represented in a fully automatic filling, stoppering and cap-sealing machine available for demonstration at the plant of Alfred Hofmann & Co. This machine is reported to be in use by several German pharmaceutical concerns for continuous filling of penicillin vials. Three sizes of this machine are

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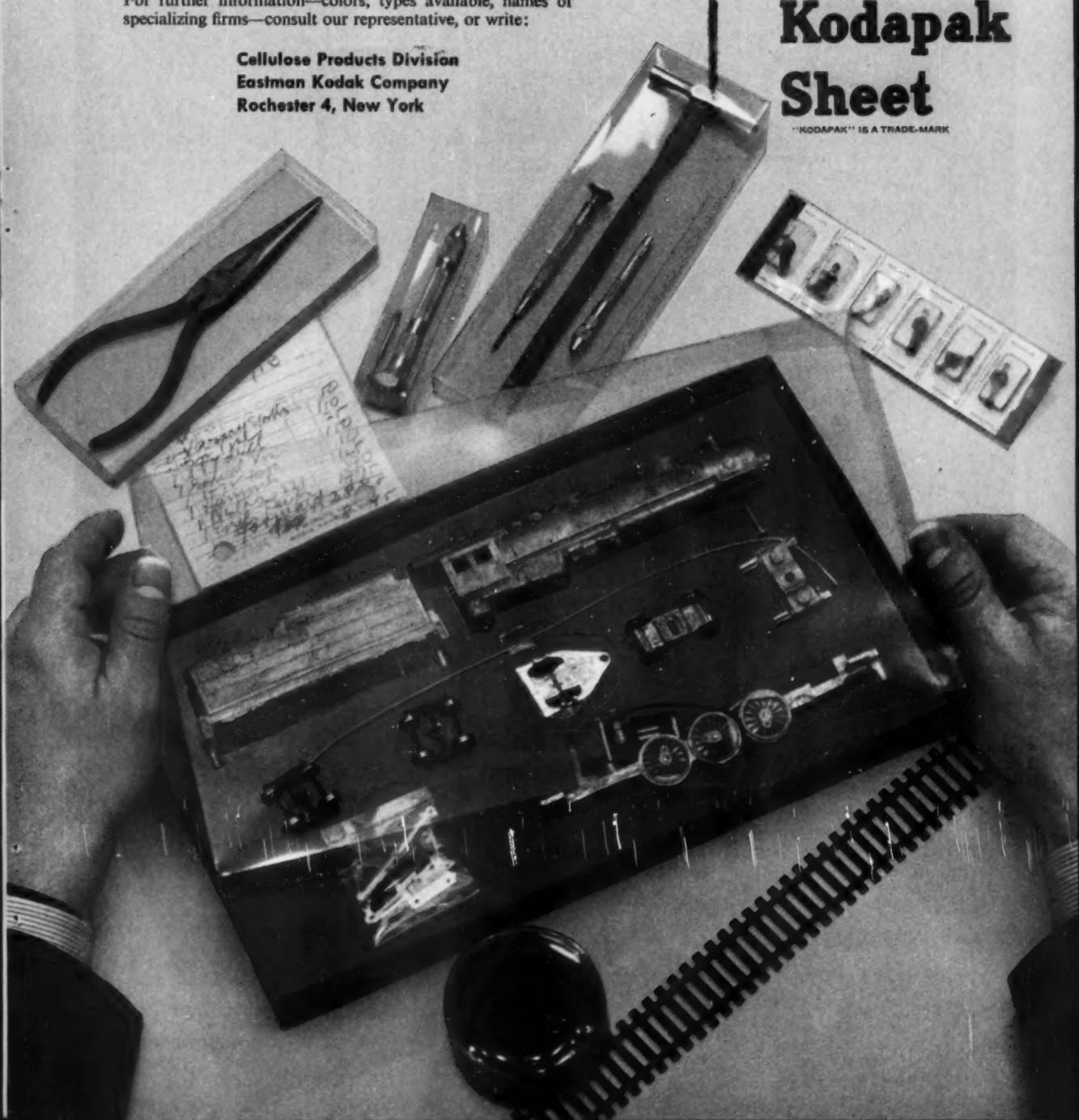
Sales offices:
New York, Chicago, Dallas.

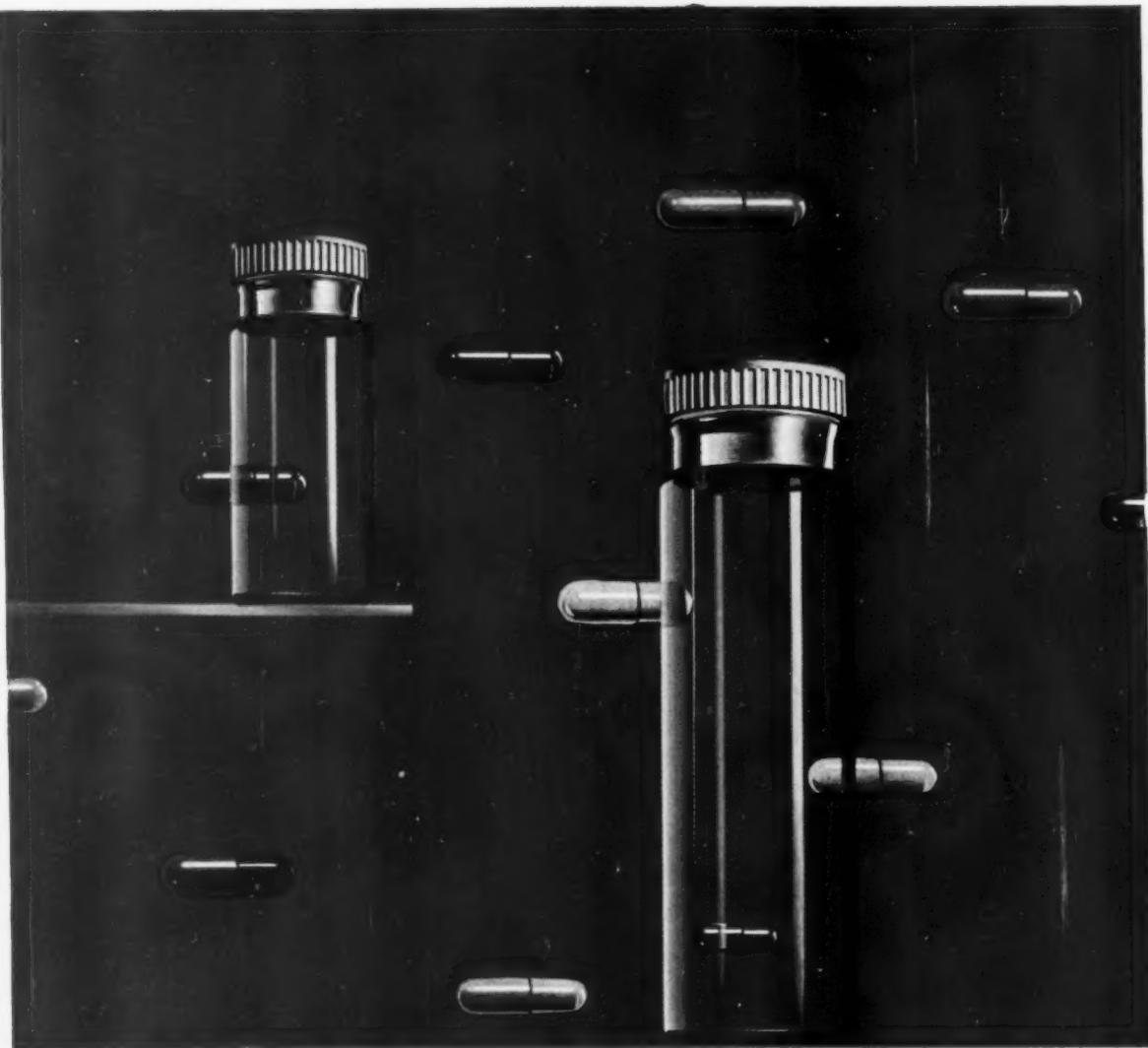
Sales representatives:
Cleveland, Philadelphia, Providence.

Distributors:
*San Francisco, Los Angeles, Portland,
Seattle (Wilson & Geo. Meyer & Co.);
Toronto, Montreal (Paper Sales, Ltd.).*

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Kimble Opticlear Vials are made of such extremely clear glass that their contents virtually seem to float in space. That is part of the classic beauty of these vials especially designed for fine prescriptions and fine pharmaceutical products.

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MODERN PACKAGING

Equipment and materials

available; a single-head unit performing at the rate of 30 to 50 per minute; a double-head machine for rates of 60 to 80 per minute; a three-head unit for rates of 100 to 120 per minute. The machine includes provision for easy maintenance of sterile requirements and ease of change-over for vial size.

A NEW STRIP HEATED WAX TANK

known as the Model ST-3, announced by the Aeroil Products Co., Inc., Wesley St., South Hackensack, N. J., is designed for small-size dipping operations. Low in cost, this new bench tank is reported by the manufacturer to effect economies in handling. The unit plugs into any standard electrical outlet, is low in current consumption and heats fast under thermostatic control. The tank is said to be ideal for small-parts wax dipping and doubles as an efficient glue pot when necessary. Ruggedly built, the unit is easily portable.



A NEW REGISTER CONTROL

that combines as a complete unit both electronics and mechanics for a complete installation from one source is now being produced by Machine O'Matic, Inc., 2045 N. Hoyne Ave., Chicago 27. The unit is offered to the packaging and graphic-arts fields as a combination of correction and variable-speed transmission to give accuracy of registration control formerly not possible.

A NEW 3-TO-4-LB-SIZE HAM CAN

has been added to the line of pear-shaped sanitary ham cans made by the Continental Can Co., Inc., 100 E. 42 St., New York 17. The new container, at left in the accompanying photo-



graph, joins the other three Continental can sizes—miniature, small and medium—all of which have the advantage of all-over lithography. With this new-sized can, domestic packers can compete with foreign hams packed in the 3-to-4-lb. size.

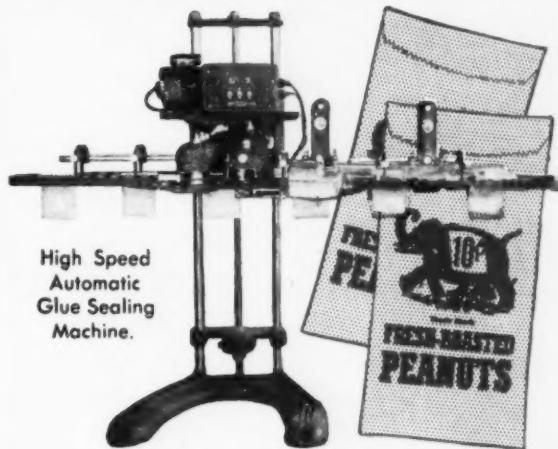
AN ADHESIVE FOR CEMENTING CORK

to decorative glass stoppers, developed by the Adhesive Products Corp., 1660 Boone Ave., New York 60, enables their use as primary seals in decanter-type liquor bottles, according to the manufacturer. In the past, manufacturers supplied decanter bottles with a cork seal and the glass stopper had to be attached with a ribbon alongside the bottle. This adhesive, called Cork-Grip, is resistant to alcohol, will not contaminate

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If your product is packaged in Cellophane, Pliofilm, Polyethylene, Diafane, Maralux, Foil or Paper . . . you can do a better sealing job at lower cost with an AMSCO. If the material is heat sealable . . . if it can be glued . . . AMSCO can supply the machine to meet your requirements.

AMSCO manufactures high speed automatic rotary bag sealing machines, conveyors, foot-operated bag sealing machines and hand sealers.

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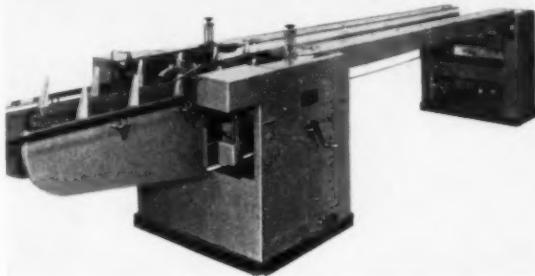
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Equipment and materials

alcoholic beverages and can be used also for cementing cork to glass novelties, the supplier reports.

A NEW INDEPENDENT POWER COMPRESSION UNIT announced by the Container Equipment Corp., 78 Locust Ave., Bloomfield, N. J., designed for use in conjunction with the company's Ceco sealers and cartoners, is reported to increase machine production between 100 and 400%, depending upon carton size. The unit's independent drive and its construction,



which eliminates the empty space between cartons, enables handling of full loads of chipboard, fibreboard or corrugated cartons. Belts are backed with ball-bearing rollers, allowing for more pressure and even pressure on cartons. Speed can be varied to obtain maximum efficiency for all carton sizes. The unit can be adapted to all Ceco machines now in operation and in no way changes the ease of adjustability and flexibility.

A SEMI-AUTOMATIC FILLER FOR HEAVY PRODUCTS

developed by The Filler Machine Co., Inc., Philmont Club Station, Pa., is designed particularly to fill all sizes of tubes, cans and glass with such products as glazing putty, caulking compounds, mayonnaise, etc. This versatile unit will fill gallon cans with only one stroke of the plunger, the maker reports. An automatic rising table that can be adjusted for different sizes of containers permits filling from the bottom up, thereby eliminating air pockets. Change-over for different container sizes and products is

reported to take only a few minutes. Constructed of bronze and steel, the unit can be equipped with casters. All contact parts can be made of stainless steel.

HIGH-GLOSS FLEXOGRAPHIC INK

suitable to printing by flexography almost all coated cellophanes, treated polyethylene film and aluminum foils has been announced by Bensing Bros. & Deeney, 3301 Hunting Park Ave., Philadelphia 29, Pa. The ink, known as Excellobrite, may be used without any alteration whatever on all three different types of stock, according to BBD, and it can be handled on the press like the company's standard "400 Series" Excellopak to

Faster Capping!

Your high-speed capping machines are only as good as the caps you use. That's why it's so important to use a cap that's built to take the punishment of modern high-speed equipment.

Armstrong's Hi-Tork® Caps are designed for that very job. They're heavier (weigh them and see), but their real strength comes from the way the plastic is distributed. Dome, skirt, and threads each have just the weight they need to take the stress applied to them. That's why they give higher line speeds with no increase in cap breakage. For further information, get in touch with your nearest Armstrong office or write Armstrong Cork Company, Glass and Closure Division, 5312 Crystal Street, Lancaster, Pennsylvania.



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CUTS LABOR COSTS! Label Seal-It takes the hand-work out of packaging... eliminates pins and stapping. One operator does the work of two! These savings alone actually pay for Label Seal-It in a few short months. Cuts label expense too... uses ordinary printer's enamel stock instead of special thermoplastic coated papers. Seals all heat sealable bag materials—Cellophane Polyethylene, Plifilm, etc.

NEWLY IMPROVED—now equipped with latest type vacuum pickup which insures individual label feeding! Built-in cam driven pump—no extra vacuum equipment to buy.

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Equipment and materials

give clean, sharp printing results. In printing aluminum foil, the company recommends that the ink be used only as a background or first-down color, then overprinted with standard BBD Foil-brite ink. It is also suggested that white, yellow or other suitable light shades be specified for use as a ground color on foil.

A NEW AUTOMATIC TURNTABLE

that speeds plastic sealing has been announced by the Thermatron Div., Radio Receptor Co., Inc., 251 W. 19 St., New York 11. The turntable, with an indexing arrangement, makes possible automatic operation of any Thermatron press and generator. Feeding the material is said to be unusually simple and labor is reduced considerably. A number of loading trays or stations are spaced around its outer edge. Items to be sealed are loaded into the trays by one or more operators. At the start of the cycle, the table rotates until the first tray is automatically indexed under the sealing electrode. The table stops, the press closes and remains closed until the seal is completed. Dwell

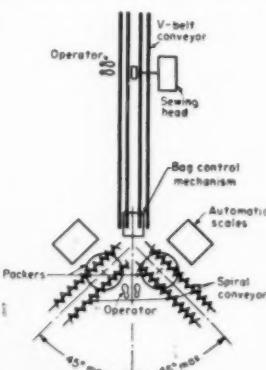


time is controlled by an electric timer. The press then opens and the turntable moves to the next position. This cycle is automatically repeated for each station and speed can be set to the fastest operator's pace. Controls are mounted in a single box. Remote starting and stopping controls are provided. The Thermatron automatic turntable is available in sizes up to 60 in. in diameter and is adjustable for four, six, eight, 12 and 24 indexes per revolution. Maximum speed is 30 seals per min.

A NEW Y-SHAPED CONVEYOR

developed by the Richardson Scale Co., Van Houten Ave., Clifton, N. J. is reported to permit two men packing products in textile or multiwall bags to turn out what three or four men

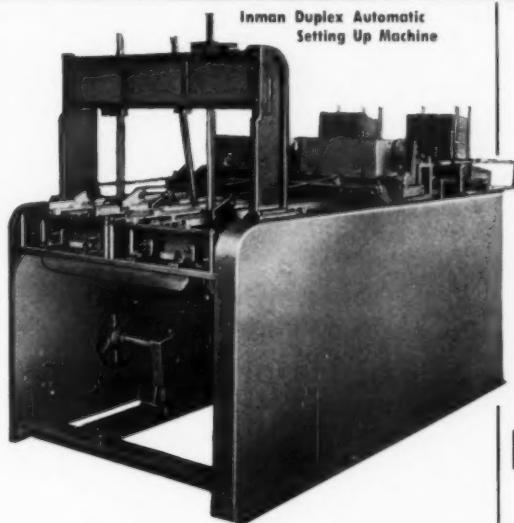
normally turn out. Materials handled include flour mashes, chemical products and any light, bulky material requiring packing or settling. The new "Y-veyor" consists of two 3-ft. spiral conveyors, which form the arms of the "Y," and a specially designed 7-ft.-3-in. V-belt sewing conveyor which forms the leg of the "Y." A control mechanism at the receiving end of the sewing conveyor prevents filled open-mouth bags passing



from the spiral conveyors to the V-belt conveyor from spilling, tipping or twisting, the maker states. In operation, two spiral conveyors are placed under two packers. The packing operator stands at the junction of the "Y" and the sewing conveyor in front of the sewing conveyor. The packing operator loads one packer while the other one is packing. Using automatic scales with oscillating or bounce packers, the unit is said to turn out up to sixteen 100-lb. bags per minute, depending on the mate-

Set up boxes faster than ever

Up to 150 per minute



This machine is used for setting up conventional glue lap boxes and covers from die cut blanks, up to 150 pieces per minute. A dual production line sets up two pieces at a time, for example—one box and one cover, or two boxes, or two covers. Construction is simple and sturdy.

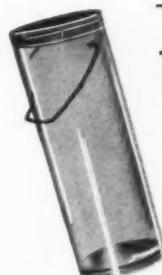
SPECIFICATIONS

Depth	3 1/4" to 4 1/2"
Maximum Length	12"
Maximum Width	12"
Largest Blank	16" x 17"
Machine Speed	Up to 75 per minute
Production	Up to 150 pieces per minute
Floor Space	51" wide x 110" long
Weight	5200 pounds
Horsepower	2

Inexpensive tools for extra sizes available. Equipped with rotary gluers and completely adjustable forming well. One operator. If sizes beyond those specified are required, they can be accommodated by changes in design. Price and delivery on request.

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Cardboard Bottoms
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Better cost control
Scales

THE EXACT WEIGHT SCALE COMPANY

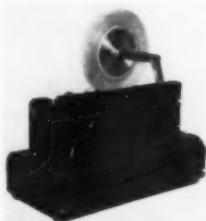
914 W. Fifth Avenue, Columbus 8, Ohio
2920 Bloor St. W., Toronto 18, Canada

Equipment and materials

rial being handled. With automatic scales and auger packing, it can turn out fourteen 100-lb. bags per minute. The V-belt conveyor is an adaptation of the standard Richardson sewing conveyor.

A NEW SEALING MACHINE

designed to speed up and mechanize bag sealing, wire coding, tagging, labeling and banding with a tight loop of tape is being offered by The American Specialty Co., 1000 Franklin Ave., Amherst, Ohio. Called the "Tape-Lok," this inexpensive new machine automatically applies closure ties or identifying tags of pressure-sensitive tape to packages, eliminating costly hand work and the need for skilled operators. The package is simply twisted at the end, thrust into the machine and it is sealed. The manufacturer recommends its use for packaging vegetables, fruits, cookies, candy, nuts, toys, machine parts, dried fruits, etc. Transparent, colored or printed tapes may be used. The compact, portable unit fits into any production line simply by plugging it into an electrical outlet. It weighs only 8 lbs. and measures 12 by 5 $\frac{1}{2}$ by 11 $\frac{1}{2}$ in. Sealing-slot capacity is $\frac{1}{2}$ -in. in diameter. Tape size used is $\frac{1}{8}$ in. Other sizes are available on special order.

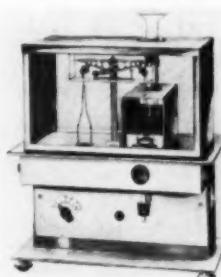


A NEW TYPE OF POLYETHYLENE FILM

created for excellent ink adhesion has been announced by The Visking Corp.'s Plastics Division, Terre Haute, Ind. Designated Visqueen "C," the film is said to lose none of the traditional qualities of polyethylene—toughness and durability—by the new process. Most major converters of polyethylene are now offering printed bags and wraps made from Visqueen "C" film, the company says.

AN ASEPTIC-TYPE FILLING MACHINE

known as the Filamatic Model PB powder filler automatically dispenses powders, granular and crystalline materials in quantities from 10 to 1,000 mg. to a tolerance of $\pm 1\%$, according to the National Instrument Co., 5005 Queensbury Ave., Baltimore 15, Md., makers of the machine. It is believed to be the first apparatus of its type capable of dispensing micro quantities with such a high degree of accuracy. The unit operates by means of a precision balance which automatically weighs and dispenses any pre-set quantity of material. Filling speed is variable from 500 to 1,000 fills per hour. The machine has no motor or rotating parts. All parts coming in contact with the filling medium may be removed for steam sterilizing. Two models are being offered: The PB-1 covers the range from 10 to 50 mg.; the PB-2 covers the range from 50 to 1,000 mg. The entire apparatus is small enough to be placed under a hood in the sterile room. Net weight is 80 lbs.



The machine has no motor or rotating parts. All parts coming in contact with the filling medium may be removed for steam sterilizing. Two models are being offered: The PB-1 covers the range from 10 to 50 mg.; the PB-2 covers the range from 50 to 1,000 mg. The entire apparatus is small enough to be placed under a hood in the sterile room. Net weight is 80 lbs.

TWO NEW STOCK ICE-CREAM CARTONS

printed in full-color, appetite-appealing family designs and with flavor identity are being offered by the Container Corp. of America, 38 S. Dearborn St., Chicago 3, for self-service sale

packaging news...

by HARCOLD



Mechanics all over the country recommend and use Permatex Radiator Cement because of its quality performance. Attention to detail and quality production of these paper canisters have played a big part in our relationship with the Permatex Company.



Form-a-Gasket No. 1, another Permatex product, forms a fast drying, hard setting assembly paste. It has consistently gained in sales and now is recognized as a staple item in the automotive field. The low price of Harcord paper canisters keeps this fine product competitively priced.



Here is an unusual paper canister for a double duty product, Permatex Cooling System Cleanser and Radiator Rust Preventor. Openings at both ends and an interior partition serve a practical and functional purpose. We're proud to be of service to a company so aware of smart merchandising.

HARCOLD MANUFACTURING CO., INC., PAPER CANISTERS
125 Monitor St., Dept. MP-12, Jersey City, N. J.—N. Y. Phone: BArclay 7-5635



Wherever goods are prepackaged "Oliver" Roll-Type Labels are known for their distinct beauty that stops the eye and begins the sale! Our experience with labeling equipment assures you a trouble-free label. Let us design a colorful label or family of labels for you. Choose from a hundred sizes and shapes, or we'll design a special shape to fit your needs.

• Write for samples
and prices today!

OLIVER MACHINERY CO.
Label Division
GRAND RAPIDS 2, MICHIGAN

Equipment and materials

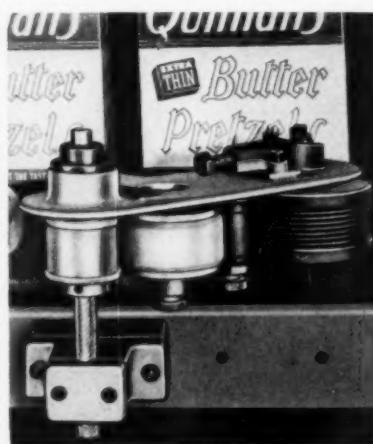
of packaged ice cream. The "Imperial" line, lithographed in full color, carries a realistic reproduction of the product on main panels with flavor symbol, flavor name and brand name prominently displayed on all panels. The other, named "Burgundy," features a large dish of freshly scooped ice cream on the main panel of five packages—three for standard flavors and one each for nut or special flavors.

GREASEPROOF BARRIER PAPER REQUIREMENTS

of Military Specification JAN-B-121, Amendments 1 and 2, are now being met by all grades of Induwrap material made by the Angier Corp., Framingham, Mass., according to the company. Until recently, shortage of high-grade acetate film restricted distribution of Grade A greaseproof barriers under the stricter requirements of Amendment 2. Angier reports that unlimited quantities of top-quality acetate are now being made available to the company for making this paper.

REDESIGN OF THE MARKING MACHINE

known as the Rolacoder 401 has been announced by Adolph Gottscho, Inc., Hillside 5, N. J. Chief among the improvements to the unit, which automatically registers spot imprints on a variety of small cartons, cases, boxes, bags, paper containers and cans, is the new "float-action" inking system that is reported to assure consistently uniform markings throughout a run without requiring any adjustments. Other new features are an improved friction



bearer that lasts longer and is easy to replace, and a new type of felt inking roller with an enlarged internal ink reservoir, according to the manufacturer. General streamlining of the unit has enabled a reduction in price from its original level.

TWO NEW POLYETHYLENE CONTAINERS

announced by Plax Corp., West Hartford, Conn., are a gallon jug with handle and a wide-mouth (100-mm. neck) gallon bottle. These two items round out the line of Plaxpak polyethylene utility containers for industry. A special pour-out spout for controlled pouring into narrow-mouth vessels is available.

PRICE OF POLYETHYLENE RESINS AND COMPOUNDS
produced by Bakelite Co., a Division of Union Carbide & Carbon Corp., 260 Madison Ave., New York 16, has been reduced for the third time in less than 14 months. The newest price reduction of 3 cents per pound will lower the price of most polyethylene resins from 44 to 41 cents per pound.

AN ADHESIVE FOR BONDING VINYL TO PAPER, board or fabric has been announced by the Research Div., Federal Adhesives Corp., 210-220 Wythe Ave., Brooklyn 11. The adhesive is reported to work well when applied either by hand or machine and to form a permanent, flexible bond.



*At its selling best...wrapped in **OLIN CELLOPHANE***

How surely this bright Lipton package, in sparkling Olin Cellophane, catches your eye—and how faithfully it delivers to your cup all that brisk Lipton fragrance and flavor!

For your product—would you like to see faster action at the counter, better protection on the shelf? Let the

Olin Merchandising Service show you how Olin Cellophane or Polyethylene can help make your package a better salesman—possibly at lower cost.

Today, ask Olin Cellophane, 655 Madison Ave., New York, to have a packaging consultant call upon you—without obligation.



Plants and people

C. M. Reynolds has been named assistant director of sales of the film department, Plastics Div., Celanese Corp. of America, New York. Peter J. Dunn replaces Mr. Reynolds as assistant district manager of the Midwest sales territory.

Robert L. Johnson and Richard N. Campen have been added to the field technical service staff of the Plastics Div.'s Marco Products Dept. Mr. Johnson will headquartered in Chicago and Mr. Campen in Cleveland.

Construction on the new Celanese Plastic Div.'s pilot-plant center, to be added to the present facilities of the Summit, N. J., Research Laboratories, is near completion. The new center reflects the company's emphasis on expansion in the synthetic-resin and polymer field.

Paul Conaway has joined the Plastics Div. of Celanese Corp. as a sales representative in the Midwest District, with headquarters in Chicago.

Frank E. Falk has been named vice president and general manager of the Rossotti



Mr. Falk

California Lithograph Corp., San Francisco. Mr. Falk, who was recently engaged in general brokerage for his own account, was at one time a director of the National Canners and the Indiana Canners Assns. Mr. Falk succeeds Phil Papin, deceased.

Bensing Bros. & Deeney, Philadelphia, Pa., manufacturer of flexographic printing inks, has opened a new plant at 707 Park Ave., Monroe, La. The plant will be under the joint direction of Walter Baylor and Cyril Epler, and will serve Louisiana, Texas, Alabama, Tennessee, Mississippi, Oklahoma and Arkansas.

Dewey & Almy Chemical Co., Cambridge, Mass., has appropriated more than a million dollars for an expansion of manufacturing facilities to meet increased demands for Cryovac plastic bags for meat, poultry and cheese packers. The expansion program will increase film production, bag making and printing at the company's Cryovac Div. plants in Cedar Rapids, Ia., and Lockport, N. Y. Present plans call for the completion of the program by next spring.

American Machine & Foundry Co., New York, in expanding its bakery division line, has acquired six products of the bakery equipment division of The Bettendorf Co. The acquisitions include Models 60

and 75 high-speed band Slice-Masters, Model 30 band Slice-Master, Model 30 medium-speed bread-wrapping machine, automatic junior reciprocating Slice-Master, and the Bettendorf Cake Slicer. AMF will manufacture, distribute and service the machines.

T. R. Dreyer has been appointed director of manufacturing for AMF's Brooklyn, Buffalo, Glen Rock, Pa., and New Haven, Conn., plants.

AMF will consolidate its three New York offices in a 28-story, air-conditioned building nearing completion at 261 Madison Ave., to be known as the AMF Bldg. The move will take place in February.

American Can Co., New York, has promoted T. E. Alwyn to the executive department where he will work in the overall administration of the company. D. B. Craver has been elected vice president in charge of sales. Both men will remain in New York.

J. W. Wardell has been appointed sales manager of American Can's Metropolitan New York district. T. K. Webster succeeds Mr. Wardell as non-foods commodity manager for the Central Div. Succeeding Mr. Webster as sales manager of the Chicago district is J. S. Austin.

Ball Bros. Co., Inc., Muncie, Ind., has purchased the Hygeia baby-bottle business from the Hygeia Nursing Bottle Co., Inc., Buffalo, N. Y., and broadened its line of consumer products to serve the drug industry. A new sales and distribution organization to serve the drug trades will function within the Ball Consumer Products Div., managed by William E. Palmer.

Bemis Bros. Bag Co., St. Louis, Mo., will construct a new manufacturing plant at Sanford Ave. and Pacific Coast Hwy., Wilmington, Calif., to produce multiwall paper shipping sacks.

C-T-S Products, Inc., a new corporation with main offices and plant at Malvern, Pa., has been formed by Stephen A. Feely, president and treasurer, and Allison C. Clough, vice president and secretary. The new company, which has taken

over the business formerly conducted by the Malvern Mill Mfg. Co., will specialize in the manufacture of handmade and semi-handmade bags and case liners, as well as other paper products.

The resignation of Morris S. Rosenthal as president and director of Stein, Hall & Co., Inc., New York, has been announced. Lawrence Gussman has been elected to succeed Mr. Rosenthal. Mr. Gussman is also president of Stein-Davies Co., a Stein Hall subsidiary.



Mr. Gussman

Bemis Bros. Bag Co., St. Louis, Mo., has purchased all the outstanding stock of the Flexible Package Co., Chicago, manufacturer of polyethylene bags and liners. Present plans are to operate Flexible as a wholly owned subsidiary under the same name and managerial and operational personnel. In addition to polyethylene, Flexible has recently started the manufacture of bags made from Polycel, a new material reportedly combining the features of cellophane and polyethylene.

West Virginia Pulp & Paper Co., New York, has approved a plan to acquire the Hinde & Dauch Paper Co., Sandusky, Ohio, as a subsidiary through an exchange of stock. When the exchange becomes effective, it will bring together two companies which occupy positions in different segments of the paper industry. West Virginia Pulp, manufacturer of paper and paperboard, does not convert these products into end products; Hinde & Dauch, manufacturer of corrugated shipping containers, does not manufacture its entire requirements of paperboard. Plans call for Hinde & Dauch to be operated as a subsidiary of West Virginia, with the operations, personnel and customer relationships of the two companies unchanged. Sandusky, Ohio, will continue to be headquarters for the Hinde & Dauch operations.

John M. O'Neill has been appointed assistant purchasing agent of Central States Paper & Bag Co., St. Louis, Mo.

Louis J. Hoffmann, vice president of Central States, was recently installed as president of the Advertising Club of St. Louis.

Dow Chemical Co., Midland Mich., has started production at its new Styron manufacturing plant at Torrance, Calif. Dr. J. L. McCurdy is manager of the new

Better See H&D!

lower costs of lead
and rubber 12%
costs lowered 15%

weight 12%

engineering results
in new designs for Victor Insulators

structures of high and low
voltage insulators.

Now Pack It! Hinde & Dauch



Our 65th Year

HINDE & DAUCH

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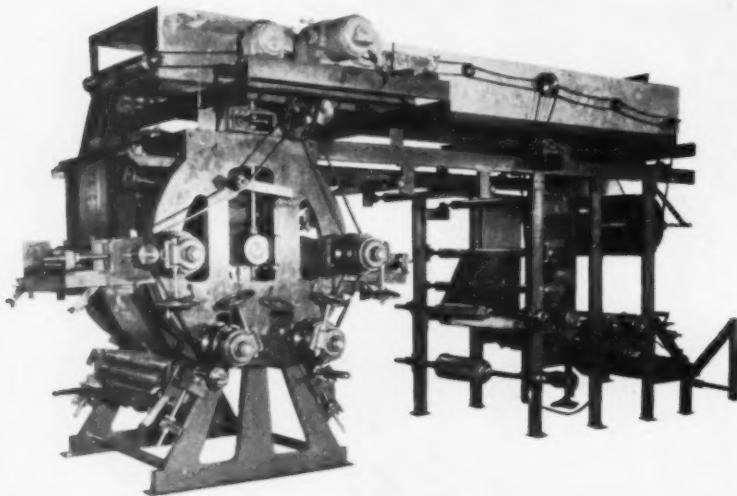
A great advancement for printing films

NEW flexographic LEMBO

4 color supported-web press

The most perplexing problems of high-speed in-register printing of polyethylene and other plastic films are solved by this ingenious Lembo press. The web is carried through the printing rollers on a continuous blanket, assuring perfect printing at speeds from 0 to 500 feet per minute. Compact construction. Widths from 24" to 60".

- Choice of 360° planetary gear register control or electronic register control
- Impression cylinders taken out of contact with printing rollers by electric motors
- Optional unit dries ink between impressions for outstanding speed.
- Can be equipped for gravure printing, and with rewinds for cellophane or paper



Full details and quotations on request

LEMBO machine works, inc.
248 East 17th St.
Paterson 4, N. J.

Manufacturers of Printing Presses and Cylinders

Ask about
Lembo surface
printing machines
up to twelve
colors.

Plants and people

plant and D. W. Ryan is production superintendent.

Paul Lipke has been appointed section head of Dow's new technical service formulation laboratory. J. W. Mighton has been named head of the new sheeting section. Maurice Q. Tessin has been appointed to a new post as staff coordinator of field development work and technical service on polyethylene, for which a plant is now under construction at the Texas Div. Robert E. Monica has been placed in charge of the new calendering section for the development of Dow polyvinyl chloride plastics into flexible sheet.

Union Bag & Paper Corp., New York, has appointed Harry M. Recher as product director of the Honeycomb Div. Mr. Recher will be responsible for the administration and sales of all of the Honeycomb products for structural and packaging uses. **Mr. Recher (left) and William F. Jacobi**



William F. Jacobi has been named manager of Union Bag's newly created Multiwall Machinery Dept. This department will be responsible for the sales, service and administration of all multiwall packaging machinery sold through the company.

Container Corp. of America, Chicago, has appointed William E. Mastbaum as sales manager for folding cartons at its Cleveland plant.

Container Stapling Corp., Herrin, Ill., manufacturer of carton stapling machines and staples, has appointed Athos D. Rossi as sales manager for its new Eastern Div.

Al Alko has joined the art department of the Character Merchandising Div., Walt Disney Productions, Inc., New York. Mr. Alko will assist manufacturers and advertisers licensed to use Walt Disney characters in product promotion.

Milton Rabinowitz has been named vice president and general manager of the First Machinery Corp., New York. The company has expanded its engineering staff and facilities to enable more effective servicing of its new and used equipment departments.

General Gummed Products, Inc., Richmond Hill, N. Y., manufacturer of gummed standard and specialty tapes,



Get your

STYRON PACKAGE

Dow

out of stock!



**your product in stock-molded reuse containers of
STYRON will stop the shopper, speed the sale!**

The Dow Chemical Company
Plastics Dept., Packaging Section PL 1432A
Midland, Michigan

Please send me your latest catalog featuring
STYRON PACKAGING.

Name _____

Company _____

Street _____

City _____ State _____

Product to be packaged _____

Many "special" packaging needs are fulfilled in cost-saving, stock-molded containers of Styron®. Take this first-aid package, for instance. Each item fits as if custom packaged. Yet, through the use of die inserts that make possible the re-arrangement of compartments, the same box will attractively display products as unlike as hosiery or bolts. And it is *all* plastic, including closure snap and hinges! Packaging like this is *worth* more to you in faster, bigger *volume* sales.

Dow offers a complete Styron Packaging Advisory Service. If there is a stock size plastics container made of Styron that will meet your requirements, Dow will put you in touch with the molder that produces it. Write, specifying package size, shape, type of closure, color, etc. THE DOW CHEMICAL COMPANY, Midland, Michigan.

you can depend on DOW PLASTICS



GOVERNMENT SPECIFICATION CONTAINERS FOR SPARE PARTS



Single Body Type MIL-C-12147-A



Telescopic Type MIL-C-5405—MIL-C-12804

Has your organization investigated the use of water resistant fiber cans with metal ends? (Method IC-4, MIL-P-116A) We are one of the few organizations tooled and presently supply leading Truck, Aviation, Tank and Electronics manufacturers with Military Specification spare parts containers. Our customers report that this method of packaging has shown them cost savings, in many cases, up to 300% over previous methods.

Write, wire or phone

UNITED CAN COMPANY, INC.

Plant & General Offices
Box 42
Phillipsburg, N. J.
Tel.: Phillipsburg 5-1135

New York Sales Office
34 Park Row
Tel.: Cortland 7-2049

Royal Oak (Detroit)
Sales Office
1218 Woodward Avenue
Tel.: Lincoln 4-0710

LOW COST BAGGER



FAST—
EASY
TO
USE!

Handles 101 Small Products

ONLY \$65.00

Slightly higher with
extra large bag
chute.

The Anderson Bagger, Model 134, is a simple, low cost machine that is doing an outstanding job for thousands of users in many industries. Operator can fill a bag and place it in a carton in one operation. Stainless steel bag chute, capacity 200 bags, adjustable to bag sizes. Blower, equipped with air filter, opens bag and keeps it free from foreign matter.

Easy to operate at high speed with a minimum of effort. Here is a machine that pays for itself quickly. Write today and tell us your product.

Send Today for Bulletin No. 12-29

ANDERSON BROS. MFG. CO., ROCKFORD, ILL.

SELL FASTER...
BRIGHTEN BOX COVERS,
LABELS, GIFT WRAPS

WITH **VELVA-GLO® 40"**
Fluorescent Paper

Choice of 8 extra-bright colors:
blue, cerise, chartreuse, red,
orange-yellow, orange-red, green
and orange. All colors stable in
storage, remain effective for months
of interior exposure. Your design
easily printed by letterpress,
offset, silk screen or gravure. Order
NOW from your printer, paper
dealer or write us for printed
samples and color card.

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RADIANT COLOR CO.

Dept. 12P • 830 Isabelle St., Oakland 7, California

Manufacturers of VELVA-GLO Fluorescent
Papers • Cardboards • Signcloth • Brushing
and Spraying Colors • Silk Screen Colors

Plants and people

has started construction of a new plant to be located in Linden, N. J. Completion of the single-story building is expected by December, 1953.



R. G. Waddell has been appointed eastern representative for the Dill Mfg. Co., Cleveland, Ohio, manufacturer of tire valves, parts and accessories. Mr. Waddell was formerly with the Firestone Tire & Rubber Co. and has an extensive background in tire valves and valve products.

Two long-time employees of the Gardner Board & Carton Co., Middletown, Ohio, were recently honored by the company. C. H. Avery, general director of carton sales, marked his 25th year with Gardner. Ames Gardener, general manager of carton sales, celebrated his 20th year of service with the firm.

Gering Products, Inc., Kenilworth, N. J., manufacturer of plastic products, has announced the following appointments: Daniel Newman, treasurer; Ralph F. Hayes, vice president in charge of production; Neil A. Koop, vice president in charge of engineering; Gordon P. Schmelter, technical director; Wayne M. Schrag, manager, technical service; Raymond S. Mistretta, manager, compounding division; David Levine, manager, extruded products division; Thomas L. O'Connor, sales manager, compounding division; Harry F. Eels, sales manager, garden hose division; James D. Oakley, sales manager, export division; Leon Papier, traffic manager; M. Joseph Malik, purchasing agent.

W. H. Hutchinson & Son, Inc., Chicago, bottle-crown manufacturer, has appointed the Latchford-Marble Package & Supply Co., Los Angeles, and the Latchford-Marble Container & Supply Co., San Francisco, as its representatives in California, Oregon and Washington.

H. Edward Oliver has been appointed to the packaging department of Lippincott & Margulies, New York, industrial designers.

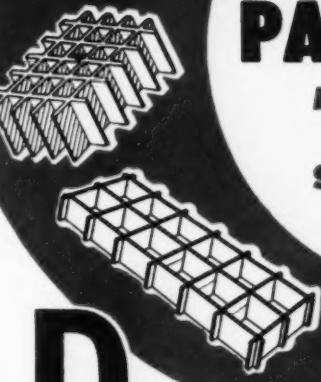
Will Freeman has been appointed to the board of directors of Lynch Corp., Toledo, Ohio, filling the vacancy created by the retirement of Uz McMurtrie.

Machine O'Matic, Inc., Chicago, manufacturer of electronic register controls,

PARTITIONS FOR PROTECTIVE PACKAGING

MADE TO YOUR
EXACT
SPECIFICATIONS

WRITE, PHONE or WIRE
for QUOTATIONS on
YOUR REQUIREMENTS



PETER PARTITION CORP.

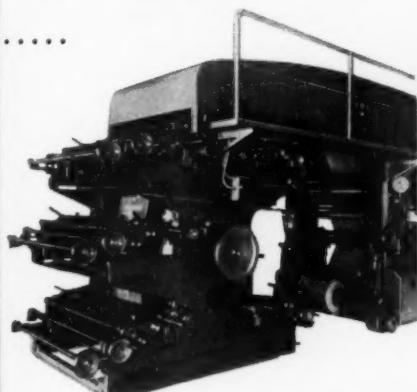
Manufacturers of Cardboard Partitions

19-21 HEYWARD ST. Telephone: Triangle 5-4033 BROOKLYN 11, N.Y.

A GOOD PRESS + GOOD PLATES = GOOD PRINTING

The H. H. HEINRICH Flexographic Press

performs at its
best with
MOSSTYPES®
*...the pre-madeready
rubber printing plates*



The finest engines run at peak efficiency only with the right fuel. It's the same with flexographic printing equipment, too—for top-quality performance you have to team a precision-engineered press with precision-molded printing plates. That's why most leading makers check out their new presses with MOSSTYPES, the rubber plates you can always depend on for accuracy and uniformity.

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Write for literature about
MOSSTYPE Rubber Plates





**Presenting...
the NEW "1954" model CCY
PETERS Carton Folding and Closing Machine**

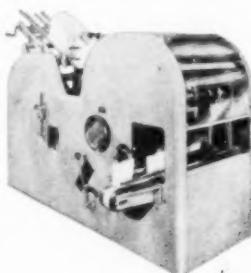
- New positive carton timer for uniform carton feed
- New self-retiming flap tucker
- New easy-to-operate hand-wheels for quick simple carton size adjustments

Now this proven packaging machine is made even better!

Three improvements on this Peters Model CCY and CCY-L Carton Folding & Closing machine make it more efficient and faster than ever. Efficiency is increased with a new *positive* carton timer that eliminates carton jamming. Also, a new self-retiming flap tucker increases tucking efficiency . . . and increases machine speed to 120 cartons or more per minute. Now you can change from one carton size to another in record time, too. Handwheel adjustments do the trick!

Complete Your High-Speed Packaging Line with this Model SE Forming & Lining Machine

New Model SE forms and lines top-opening cartons at speeds of 120 or more cartons per minute. Be sure to ask about Model SE details when you investigate the improved Model CCY.



Machinery Company
4712 Ravenswood Avenue
Chicago 40, Illinois

Peters

Plants and people

has announced a complete reorganization and expansion of facilities with **Al I. Bessonny** as president. The company has appointed **Electronic & Television Consultants, Inc.**, 17 W. 172 St., New York, as its exclusive representative in New York and New Jersey.

Crown Can Co., Philadelphia, Pa., has appointed **Edward P. Stuart** as sales manager, Atlantic Div., with headquarters in Philadelphia.

Burk Kraleman, Philadelphia sales manager, has been promoted to sales manager of the Mid-West Div., Chicago.

Barnes is now Philadelphia district sales manager and new St. Louis district sales manager is **Victor Kronold**.



**Mr. Stuart (left) and
Mr. Kraleman**

Majestic Creations, Inc., producer of point-of-purchase displays, Woodside, N. Y., has appointed **Morton Ullmann**, 299 Madison Ave., New York, as sales representative in Metropolitan New York.

The Chillicothe Div. of the **Mead Corp.**, Dayton, Ohio, manufacturer of paper, paperboard and wood pulp, has announced that its new pulp-making facilities have begun production.

Milprint, Inc., Milwaukee, Wis., has appointed **Donald Ritter**, **Stanley Rodwin** and **William Masterson** to its national sales staff. **Robert H. Furtney** has been made representative of the Meat Packaging Div. of Milprint in the east.

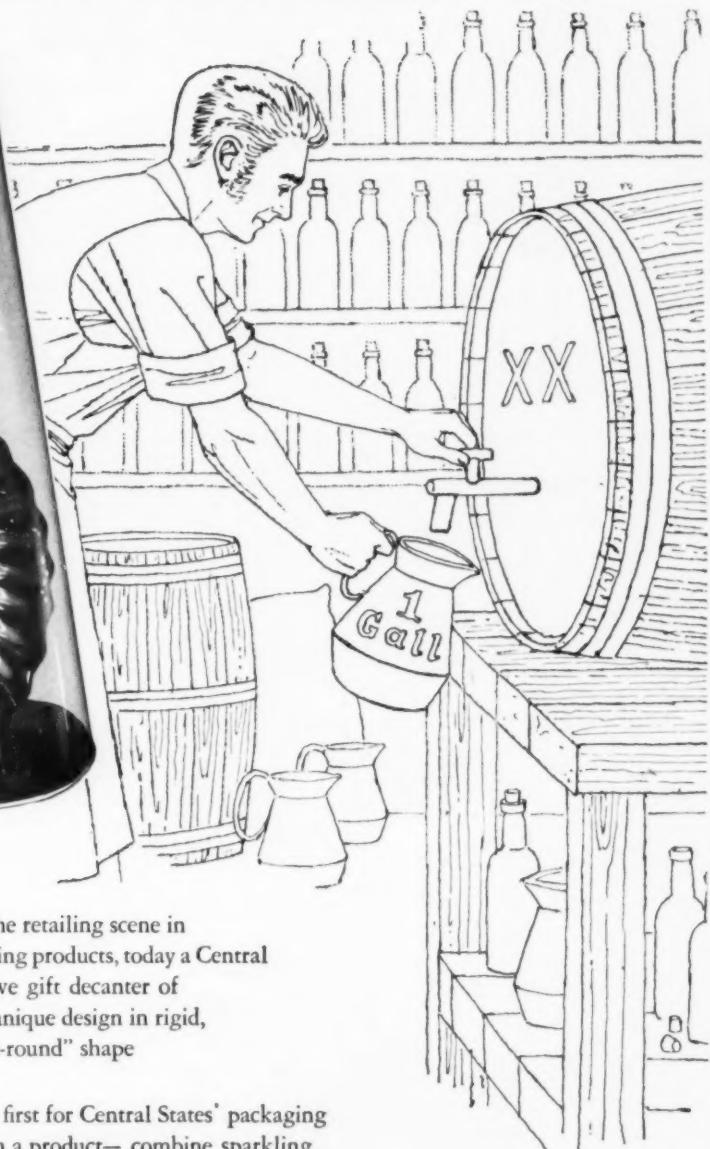
Milprint has opened offices in two Midwestern cities: one at 3910 Lindell Blvd., St. Louis, Mo., under the management of **Robert Long** and **William Masterson**, and the other at 725 Union Arcade Bldg., Davenport, Iowa, under the management of **Alan Chamberlin**.

R. M. L. Francis has been elected to the presidency of the newly formed Adhesives Mfrs. Assn. of England. Mr. Francis is managing director of **National Adhesives, Ltd.**, subsidiary of **National Starch Products, Inc.**, New York.

Frank A. Feschl has been appointed director of engineering of **Olin Industries, Inc.**, East Alton, Ill.

Pack-It, Newark, N. J., has opened a second plant for contract packaging and

The "GOOD OLD DAYS"
never had an
"OB-ROUND" SHOWBOX*



Merchandising and packaging wasn't part of the retailing scene in those "good old days". As with many other leading products, today a Central States "SHOWBOX" glamorizes the distinctive gift decanter of Kentucky Tavern. The new package is also a unique design in rigid, transparent acetate boxes . . . featuring an "ob-round" shape with rounded ends and flat sides.

The Kentucky Tavern SHOWBOX is another first for Central States' packaging designers. SHOWBOXES bring out the *best* in a product— combine sparkling eye appeal, complete visibility and protection against dust and handling.

*T. M. Reg.

Millions of SHOWBOXES have helped to sell every type of consumer product. How would your products look in a SHOWBOX? Write for samples and full information.

Sales Offices in All Principal Cities

Plants: ST. LOUIS • SALT LAKE CITY • BEACON, N.Y. • AUBURN, WASH.

DECEMBER 1953

CENTRAL C STATES
PAPER & BAG CO.
5221 NATURAL BRIDGE ST. LOUIS 15, MO.

\$ PROFIT MINDED?

You'll fill faster and at lower cost
with this automatic

FILLMASTER VIBRATORY FILLER



For dry & semi-dry products

STUYVESANT ENGINEERING COMPANY

107 STUYVESANT AVENUE

LYNDHURST, NEW JERSEY

and by the way Smedley, add another 50
cartons of Trojan IMPERIAL

Gummed Tape to that order! the
shipping department says it's perfect!



Call Your Paper Merchant

THE GUMMED PRODUCTS COMPANY • TROY, OHIO

Plants and people

private-label work. The new plant, at 7 Brown St., Newark, will package a full range of household and automotive products, chemicals, insecticides and garden supply items. Equipment includes fully automatic lines as well as semi-automatic machines to package liquids, creams, and dry products in all kinds of conventional containers. The company's other factory packages pharmaceuticals and cosmetics.



Raymond Van Blargan, merchandising artist of Continental Can Co.'s Paper Container Div., displays the design that won him the \$1,000 first prize in the American Jersey Cattle Club's recent trademark name contest.

Pak-Rapid, Inc., Philadelphia, Pa., manufacturer of packaging machines, has appointed Specialty Mfg. & Distributing Co., Toronto, Canada, as its exclusive Canadian distributor.

Container Equipment Corp., Bloomfield, N. J., has announced that many new developments are taking place since F. W. Kucklinsky, a pioneer in automatic case glue sealers, automatic tape sealers, automatic carton sealers and many other packaging-machine innovations, has returned from semi-retirement.



F. W.
Kucklinsky

A completely new plant for the production of flat and tubular polyethylene, as well as specially treated film for printing, has been opened by Plicose Mfg. Corp., New York, affiliate of Harte & Co., Inc. The new plant, located at Ash & Box Sts., Brooklyn, has doubled the capacity of the former Bush Terminal facilities.

Pollock Paper Corp., Dallas, Tex., has announced a reorganization of its Bakery Packaging Div.'s New York office, with Jack H. Conrad as the division's sales promotion manager. W. A. Rike has been named director of package design and



Put them in

Clearsite*

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Plants and people

Ted Jensen is director of bakery packaging service.

Kenneth E. Knowles has been elected a vice president of Clapp & Poliak, Inc., New York. Clapp & Poliak manages the AMA show, the Western Packaging & Materials Handling Exposition and other business and industrial expositions. Mr. Knowles was with the Du Pont company before joining Clapp & Poliak in 1947.



Mr. Knowles

Plax Corp., West Hartford, Conn., manufacturer of plastic squeeze bottles, has named four additional distributors for its Plaxpak bottles: Atlantic Glass Co., Baltimore, Md.; Samuel Mallinger Co., Pittsburgh, Pa.; Ohio Container Co., Columbus, Ohio; and White Container Co., Cincinnati, Ohio.

Royal Hair Pin Corp., New York, has purchased the Gilda-Wright Machine Co., Inc., Rexford, New York, manufacturer of automatic high-speed paper-can seaming machinery used in packaging household abrasive cleansers. The Machine Div. of Royal Hair Pin and the plant of Gilda-Wright have been consolidated in Newburgh, N. Y., where Gilda-Wright is operated as a division of Royal Hair Pin. A series of popular-priced new model automatic can-seaming machines is being offered by the firm.

James F. Pouchot has been appointed as sales representative for the Chase Bag Co., Chicago. Before joining Chase, Mr. Pouchot was employed by the Textile Bag Mfrs. Assn. He will headquartered in the Chicago sales office after completing routine field training for his new post.

Fred Wehmer has been appointed technical sales manager of the Rubber & Asbestos Corp., Bloomfield, N. J. He will have charge of the technical sales of the company's adhesive products. John W. Bruce, Jr., has been appointed technical sales representative.

Scovill Mfg. Co., Waterbury, Conn., has moved its New York office from the Chrysler Bldg. to the entire 18th floor of Chrysler Bldg. East.

Walter A. Edwards has been appointed assistant administrator of the Business &

Defense Services Administration, Dept. of Commerce. Mr. Edwards is on loan from the Owens-Illinois Glass Co.

An agreement has been concluded between Imperial Chemical Industries of Australia & New Zealand, Ltd., and the Visking Corp., Chicago, for the manufacture of polyethylene film and lay-flat tubing by Icianz in Australia and New Zealand. The products will be sold under the trademark Visqueen. Icianz is erecting a plant at Deer Park, Melbourne, Australia, to manufacture Visqueen film and tubing. Production will begin in 1954.

W. & W. Container Co., Brooklyn, N. Y., has expanded its cellophane-converting facilities. The company has installed modern equipment for fine analine printing to complement its line of cellophane and polyethylene bags.



Mr. Lamb (left) and
Mr. Boston



The Bartelt Engineering Co., Rockford, Ill., has named Robert D. Lamb vice president in charge of the New York sales office, located at

370 Lexington Ave., covering the Connecticut, New York and New Jersey territory. William T. Boston, former sales manager, has been appointed vice president in charge of sales.

James E. O'Connor and Arthur Wagner have been appointed as marking systems engineers for Weber Label & Marking Systems, division of Weber Addressing Machine Co., Mt. Prospect, Ill. Both men will cover the Chicago area and will sell machines and hand devices.

Claude P. Elston, advertising manager of West Virginia Pulp & Paper Co. prior to his retirement in 1952, died on Oct. 18 at the age of 66.

Arthur C. Ewer, manager of the Brooklyn plant of Bemis Bro. Bag Co., St. Louis, Mo., died on Oct. 19 after a long illness. Mr. Ewer had been with the company for over 53 years.

Lester E. Remmers, manager of the Los Angeles Div. of Crown-Zellerbach Corp., San Francisco, died of a heart attack on Oct. 5. Mr. Remmers had served Crown-Zellerbach for over 25 years.



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For your information

The largest showing of equipment and services ever held by the **Canning Machinery & Supplies Assn.** will be exhibited at the 47th annual exhibit of the association in Atlantic City, Jan. 23-27, in conjunction with the **National Canners Convention**. It is reported that 137 exhibitors will occupy 102,000 sq. ft. of floor space. Plans have been made for several social events during the show.

Roth F. Herrlinger of The Gummed Products Co. was unanimously elected president of **The Gummed Industries Assn., Inc.**, at its recent annual convention. **T. H. Mittendorf** of the Hudson Pulp & Paper Corp. was unanimously chosen vice president and **Philip O. Deitsch** was again designated managing director, treasurer and secretary. The new board members are **H. E. Gorton** of Dennison Mfg. Co.; **R. T. Meyer** of Tape, Inc.; **William L. Shattuck** of The Adhesive Products, Inc.; **Henry W. Stark, Jr.** of Rexford Paper Co.; **F. A. Stocker** of Stocker Mfg. Corp.; **Jerry Warshaw** of Atlantic Gummed Paper Corp. and **Arno L. Zinke** of Mid-States Gummed Paper Co.

The following officers were re-elected at the 38th annual meeting of the **Label Mfrs. Assn., Inc.**, held recently in Chicago: president—**Henry F. Scheetz, Jr.**, of Fuller Label & Box Co.; vice president—**Robert A. Ritter** of Calvert Lithographing Co.; treasurer—**T. C. Nevins, Jr.**, of The Nevins Co.; executive director—**Oscar Whitehouse**. New members of the board of directors include: **H. N. Cornay** of Press of H. N. Cornay; **W. A. Kindorf** of Interstate Printing Co.; **W. H. Martin** of Wheeler-Van Label Co. and **Charles C. Rossotti** of Rossotti Lithograph Corp.

The Steel Shipping Container Institute, 600 Fifth Ave., New York 20, has just published a 1953-54 Directory of steel shipping-container manufacturers, covering 95% of total industry production. It includes tables that provide quick product-manufacturer cross-reference and addresses for manufacturers' plants and offices; statistics on annual production of various container types and their uses by industries; historical material; general information on container specifications and recent research developments.

The Glassine & Greaseproof Mfrs. Assn. has issued a new booklet entitled "Glassine and Greaseproof—The Wonder Papers for Protective Packaging." It contains important information on how glassine and greaseproof papers are made, their prop-

erties and their place in modern protective packaging. Copies are available without charge to executives and packaging engineers who request it on company letterhead. To others, the book is available at \$1.80 per copy. Address requests to **Thomas J. Burke**, secretary-treasurer, Glassine & Greaseproof Mfrs. Assn., 122 E. 42 St., New York 17.

The Plant Maintenance & Engineering Show will be held Jan. 25-28 at the International Amphitheatre, Chicago, in conjunction with the **Plant Maintenance & Engineering Conference**. Maintenance problems in the food-processing and packaging field will get special attention and hundreds of new products useful in the maintenance of food-processing and packaging plants will be on display. Advance registration cards may be had from **Clapp & Poliak, Inc.**, exposition managers, 341 Madison Ave., New York 17.

The Packaging Machinery Mfrs. Institute will hold its spring meeting April 3-4, 1954, the Hotel Dennis, Atlantic City, N. J. The Hotel Dennis will be headquarters for PMMI during the Annual Packaging Exposition.

Closing date for entries in the **1954 Folding Carton Competition**, sponsored by the **Folding Paper Box Assn. of America**, is Dec. 31. Several refinements have been added to the competition rules: There will be a maximum of 100 awards presented to "America's 100 Best Folding Cartons." There will be no Grand Award winner; instead, a First Award will be presented in each of the 20 breakdowns of the four main classifications and other winners in these classifications will be given Awards of Merit. The "Superiority of Printing" classification has been broken down into processes. Each entry blank must be signed by the official representative of the company submitting the entry. Copies of the rules and entry blanks may be had on request to the association at 337 W. Madison St., Chicago.

At a special election during the recent midyear meeting of the **Fibre Drum Mfrs. Assn.**, **W. J. Mahoney** of The Master Package Corp. was elected treasurer and **H. H. Filler** of Rheem Mfg. Co. was elected to the board of directors to complete the term of **R. E. Hall**. St. Louis was selected as the place for the next annual meeting of the association, to be held next April.

The 1954 National Frozen Food Convention, sponsored by the **National Assn. of**

Frozen Food Packers, will be held Jan. 31 to Feb. 3, 1954, Commodore Hotel, New York. The theme of the convention will be "Know the Score in '54." The unprecedented four-day session will give particular attention to expansion of frozen-foods sales and reduction of operating costs at all levels. The convention will feature the first frozen-food sampling display ever presented. Booths will be arranged circus style, with heating and serving facilities available for a wide variety of prepared and specialty foods. Information and registration forms are available from the **Frozen Food Convention Committee**, Room 402, 1415 K St., NW, Washington 5, D. C.

The Reynolds Metals Co. has built an aluminum trailer, 30 ft. long, to tour the country demonstrating the newest packaging applications of aluminum. Called the "Packaging Bandwagon," the trailer has built-in movie and slide projectors, illuminated wall displays showing 160 aluminum-foil packages now being used by manufacturers, as well as samples and photographs of equipment and materials for the manufacture of all types of Reynolds foil packages. Arrangements to visit any specific location may be made by writing the **Reynolds Packaging Div.**, 2500 S. Third St., Louisville 1, Ky.

A 30-page booklet entitled "**Protective Packaging with Aluminum Foil**" has been published by Reynolds Metals Co. as a guide to the use of aluminum foil as an effective packaging material. It contains charts and tables showing the water-vapor transmission rates of various types

What's doing

- Dec. 13-15—**Northwest Frozen Foods Assn.**, annual meeting, Olympic Hotel, Seattle, Wash.
Dec. 13-18—**National Assn. of Display Industries**, Hotel New Yorker, New York.
Jan. 22-27—**National Canners Assn.**, **Canning Machinery & Supplies Assn.** and **National Food Brokers Assn.**, convention, Atlantic City.
Jan. 25-28—**Plant Maintenance & Engineering Show and Conference**, International Amphitheatre, Chicago.
Jan. 31-Feb. 3—**National Frozen Food Convention**, **National Assn. of Frozen Food Packers**, Commodore Hotel, New York.

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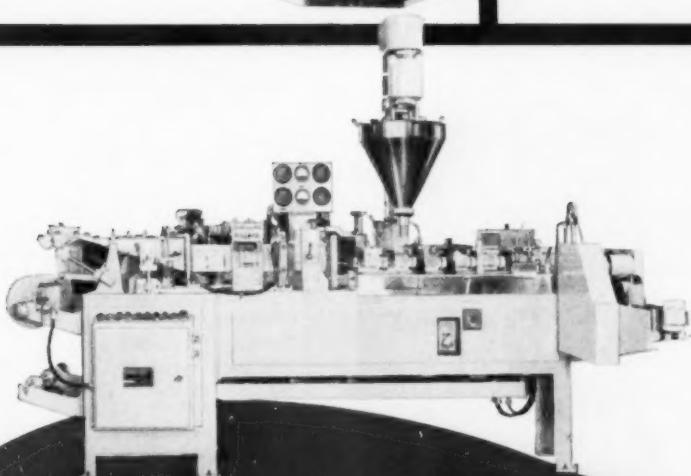
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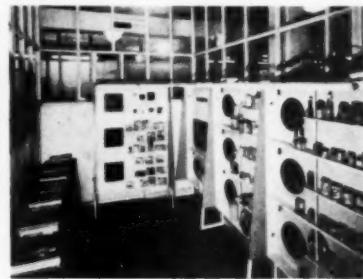


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For your
information

of foil packages in comparison with other packages, as well as tables to assist in the proper selection of foil specifications relative to the amount of protection required. The booklet, intended as a complete reference on aluminum-foil packaging materials, their characteristics, techniques of use, etc., is available at no charge to packaging engineers and technical men when requested on company letterhead, and at \$1 per copy to others, from the Reynolds Metals Co., Desk PR, 2560 S. Third St., Louisville 1, Ky.

The Australian Government has established a **Packaging Library** in the Dept. of Commerce and Agriculture Bldg. at Melbourne, Australia, to provide Aus-



New Australian Packaging Library

tralian businessmen and manufacturers with a continuous study of examples of American packaging techniques and processes. The collection for the library was made possible by hundreds of packages and photographs of current packages forwarded to Australia by American manufacturers over the past year and a half. The library has obtained the services of E. G. Jacobsson as honorary consultant to the Australian Government.

Postponement of the Fifth Film, Sheeting and Coated Fabrics Division Conference, sponsored by The Society of the Plastics Industry, Inc., has been announced. Originally scheduled for Dec. 3 and 4, the conference will be held in the spring of 1954 at a date to be announced later.

Continental Can Co., New York, has introduced a three-part educational program into the schools of its plant cities to help teach America's economic story through a study of the packaging industry. A 63-page teacher's guidebook entitled "Packaging, Its Contribution to Better Living" is a major part of the program, which also includes six full-color wall charts suitable for classroom use and an animated film, "The Story of

For your information

Packaging," available separately on free loan from local plant managers.

The New Jersey Machine Corp. has issued a new catalog on its Pony Labelrite machine, covering a number of features of the machine which have not appeared in catalog form before, some of them recently developed. Copies are available from the New Jersey Machine Corp., 1610 Willow Ave., Hoboken, N. J.

Radiant Color Co., manufacturers of fluorescent papers, is offering a kit of label samples to show the effectiveness of labels printed on Velva-Glo "40" fluorescent wrap and label papers. One, two or more color designs are printed on Velva-Glo "40" by letterpress, offset, silk screen or gravure. Further information and price list are available from Radiant Color Co., 830 Isabella St., Oakland 7, Calif.

Container Laboratories, Inc., 45 E. 22 St., New York 10, has issued an illustrated booklet entitled "1923-1953 Container Laboratories, Inc.," depicting the growth of the company since its establishment in Rockaway, N. J., 30 years ago. The brochure explains the services offered by the company, the manufacturers it serves, and illustrates the firm's laboratories and facilities in New York, Chicago and Los Angeles.

Continental Can Co. has been awarded its fourth consecutive "Oscar of Industry" for the best annual report in the food-container industry in the 13th annual report survey conducted by *Financial World*. The winning report is a 24-page booklet with a cover carrying an impression of a can end bearing Continental's Triple-C trademark. The annual reports of the Owens-Illinois Glass Co. and the Thatcher Glass Mfg. Co. were second and third winners, respectively, in the food-container category.

The Visking Corp., Chicago, has announced its support for the current scholastic year of graduate fellowships in either chemistry, chemical engineering or mechanical engineering at Cornell University, University of Illinois, Massachusetts Institute of Technology, McGill University, University of Michigan, University of Minnesota, Northwestern University, Ohio State University, Purdue University and the University of Wisconsin. This program, which began in 1951, provides \$1,500 a year for the recipient independently chosen by the staff of the



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This may seem a startling admission for a producer of the machine acknowledged by converters everywhere as the leader in Polyethylene bagmaking. However leadership always walks hand-in-hand with responsibility, one aspect of which is to keep the record straight. Another is the twin problem of eliminating existing snags as well as anticipating those that technological advances will create. Converters look to Roto for these answers.

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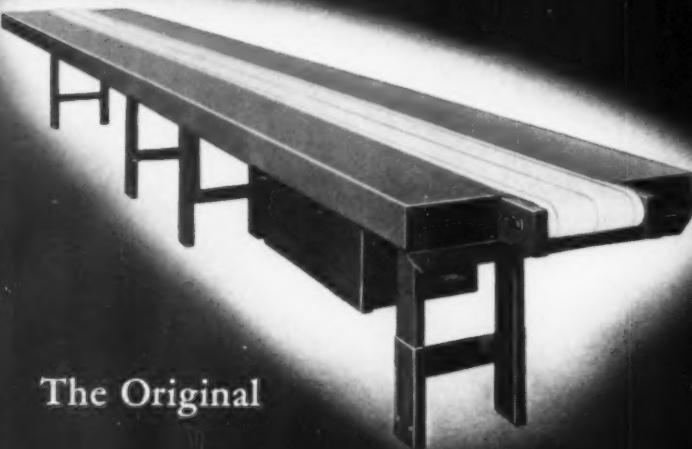
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For your information

respective institutions and funds for full tuition, equipment and supplies.

The Hercules Powder Co., Wilmington, Del., has issued a new technical booklet on the use of ethyl cellulose in specialty coatings. Ethyl cellulose is being utilized in coatings for such widely different surfaces as polystyrene, rubber, metal, wood and paper, and as the base of many liquid adhesives, strippable protective coatings and gel lacquers. The booklet contains starting formulations for many of these applications, as well as information about solvents and stabilizers used in ethyl cellulose coatings. Copies are available upon request to any Hercules sales office.

The Scovill Mfg. Co., Waterbury, Conn., one of America's oldest brass firms, has just issued a 20-page booklet covering the company's 64 years of work in aluminum since 1889. The booklet, entitled "Scovill Truspec Aluminum Strip," announces the results of the latest research efforts by Scovill which states it has "a new industry standard in controlled quality and uniformity" in its cold-rolled aluminum strip. A special section of the booklet contains technical data on five basic alloys offered currently by the company.

The Paper Shipping Sack Mfrs. Assn., Inc., has issued a booklet entitled "General Manual No. 3," illustrating and describing recommended practices for handling, storing and shipping material packed in paper shipping sacks. Copies are available at 35 cents each from the Paper Shipping Sack Mfrs. Assn., Inc., 370 Lexington Ave., New York 17.

More than 2,000 representatives from 617 business concerns attended the 10th annual meeting and dinner of the Packaging Advisory Committee of the **National Security Industrial Assn.**, held recently at the Waldorf Astoria, New York. The importance of military packaging, new packaging techniques featuring cost reductions and the developments in military packaging with possible commercial applications were emphasized in several talks and exhibits prepared by the Military and leading industrial users of military packaging materials. Elected as officers for 1954 were **John Jay Hopkins**, chairman of the board of trustees; **Homer H. Ewing**, president, and **John A. Hill**, chairman of the executive committee. **Dan A. Kimball**, former Secretary of the Navy, was elected a trustee and to honorary life membership in the association.

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U. S. patents digest

This digest includes each month the more important patents of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps not accepted. Edited by H. A. Levey

Bag-making Machine, T. W. Keller and C. W. Garvin, Council Bluffs, Iowa, and Omaha, Neb. U.S. 2,652,879, Sept. 22. Apparatus for making bags from tubular thermoplastic stock comprising a first pair of feed rolls, a second pair of feed rolls, means for intermittently driving feed-roll pairs in unison and having intermittently operated sealing means positioned intermediate of said feed-roll pairs.

Flatware Package, T. W. Foster (to Container Corp. of America, Chicago, Ill.). U.S. 2,652,921, Sept. 22. The combination with a filled paperboard flatware-holding tray assembly including a flat bottom part and an elongated raised saddle part having outward and downwardly diverging sides and disposed medially of bottom part, there being a transverse slot formed in saddle part and having disposed therein the handle portions of a plurality of articles such as forks, spoons or the like.

Article-Handling Apparatus, T. R. Hughes (to Owens-Illinois Glass Co., a corporation of Ohio). U.S. 2,652,931, Sept. 22. Article-transferring apparatus comprising a carriage, a reversible motor, means operatively connecting the motor to the carriage, means for reversing the motor in order to reciprocate the carriage, carriage comprising a manifold provided with a series of openings therein, a series of suction cups made of resilient material mounted on manifold over openings and means for applying a vacuum to the manifold, a solenoid valve controlling said means for applying vacuum to manifold.

Pneumatic Transfer Pad for Labeling Machines, S. T. Carter (to Geo. J. Meyer Mfg. Co., Cudahy, Wis.). U.S. 2,652,941, Sept. 22. In combination in a labeling machine wherein a gum-coated picker removes a plurality of labels simultaneously from a supply and carries them to a transfer station where the several labels are disposed in the same plane, means for supporting an article to be labeled, and rock arm and means for moving rock arm to move pads toward article to be labeled.

Sheet-Metal Container, J. Henchert (to Continental Can Co., Inc., New York, N.Y.). U.S. 2,652,947, Sept. 22. A sheet-metal container comprising a body portion having an outwardly turned flange at the upper edge thereof, a drawn-metal collar extending into the open end of body and having a flange rolled outwardly into a seam with the flange on the body, the inner face of collar being dimensioned to provide a friction seat for a closure plug.

Carton-Handling and Loading Apparatus, R. J. Fahey and M. Burger (to General Package Corp., a corporation of Delaware). U.S. 2,652,960, Sept. 22. Carton-handling and loading apparatus comprising means for supplying erected, empty, hinged-cover-type cartons, a frame, a horizontally extending endless conveyor traveling on frame in receiving relation to carton-supply means, means for continuously advancing said conveyor, conveyor having a plurality of carton supports.

Automatic Bottle Sealing, J. L. Pomeroy (to Gisholt Machine Co., Madison, Wis.). U.S. 2,652,963, Sept. 22. A machine adapted to apply seals of the tubular regenerated-cellulose type to bottle tops and the like, means to supply flat folded seals in rapid succession, means disposed in correlation to first-named means to open said seals successively and means to position seals on corresponding bottles in succession as bottles pass through machine in rapid succession.

Method and Apparatus for Sealing Containers, O. Bjering (to Owens-Illinois Glass Co., a corporation of Ohio). U.S. 2,652,964, Sept. 22. The method of utilizing waste steam from a container-sealing apparatus wherein steam is used to displace air in the containers, which method comprises moving the chuck in a closed horizontal path through a steam zone and causing them to pick up caps and apply them to containers during the movement in closed horizontal path.

Bottle Carrier, H. V. Bolding (to Bradley & Gilbert Co., Louisville, Ky.). U.S. 2,652,968, Sept. 22. A collapsible, cellular

bottle carrier formed from a single blank of sheet material, carrier comprising a rectangular bottom consisting of two sections foldable into side face-to-face relation along an intermediate score line with side walls hingedly connected to opposed margins of bottom.

Carton, H. A. Pfaff (to Marathon Corp., Rothschild, Wis.). U.S. 2,652,969, Sept. 22. A carton of flexible material comprising a tray having a bottom wall, front and rear walls and side walls, a cover having a top wall, side walls and a front wall, cover walls being adapted to overlie snugly said tray walls when carton is closed.

Folded-Blank Carton, W. C. George (to Gaylord Container Corp., St. Louis, Mo.). U.S. 2,652,970, Sept. 22. A one-piece folded-blank carton comprising end walls and side walls having upper marginal half-cover flaps, the free edges of which flaps are in substantial horizontal abutment, said half-cover flaps having hingedly connected, inwardly depending end flanges adapted, when cover flaps are closed, to extend into said carton alongside the inner faces of end walls, each of end walls having hingedly connected upper marginal sealing flaps.

Paper Bag, H. C. Davis (to Bemis Bro. Bag Co., St. Louis, Mo.). U.S. 2,652,972, Sept. 22. A paper bag particularly for holding empty cans stacked in horizontal layers of generally rectangular outline, comprising a single-ply paper-bag tube having a generally rectangular cardboard-bag bottom, lower margins of tube being folded inward and adhered to bottom, and having four paper reinforcing strips adhered to inside of bag tube extending lengthwise of bag.

Carton-Erecting Mechanism, R. J. Hickin (to The Ohio Boxboard Co., Rittman, Ohio). U.S. 2,653,524, Sept. 29. In mechanism for erecting cartons of the hook-end type having a pair of complementally vertically erectable flap members, each provided with interhook means, said hook means being interengageable by relative vertical movement of flap members, and means for applying pressure to the carton in the direction of engagement of hook means.

Single-Edge Blade Dispenser, E. A. Nelson (to American Safety Razor Corp., Brooklyn, N.Y.). U.S. 2,653,704, Sept. 29. A dispensing magazine for unwrapped single-edge safety-razor blades of the type having a reinforcing back and end notches, comprising a casing having top, side and end walls, and bottom, a discharge slot at the intersection of one end wall and the top, widened at one end to permit passage of the reinforcing back, an opening in the top behind the widened end of slot providing access to blades.

Carton and Packing Cell, R. O. Spalding (to Owens-Illinois Glass Co., a corporation of Ohio). U.S. 2,653,708, Sept. 29. A package comprising a carton including vertical side walls and horizontal top and bottom walls, a packing cell consisting of a sheet of resilient material with parallel score lines defining rectangular panels including diagonal panels, intermediate panels connecting the diagonal panels and lying flat against inner faces of the vertical carton walls.

Bottle Carrier, G. C. Currie (to Dacam Corp., Charlotte, N.C.). U.S. 2,653,742, Sept. 29. A carrier for bottles and the like formed from a single blank of material and having a handle comprising two handle portions hingedly secured to each of said handle portions.

Machine for Placing Dishes in Cartons or Containers, R. C. Stenger (to Sutherland Paper Co., Kalamazoo, Mich.). U.S. 2,653,743, Sept. 29. A machine for assembling dishes and cartons comprising, in combination, an endless feed conveyor provided with longitudinally spaced flights, a feed way provided with longitudinal openings through which the flights project on the work stroke thereof for translating containers along the

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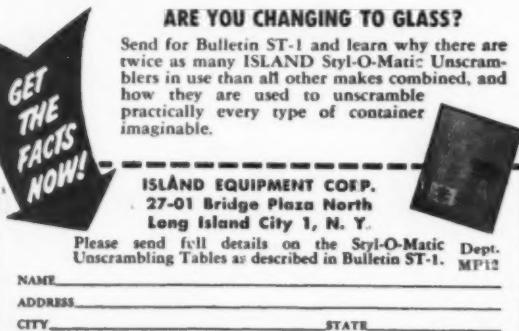
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U. S. patents digest

way, a magazine disposed at the side of feed way and adapted to receive a stack of upwardly facing dishes.

Container-Closing Mechanism, F. Huntar and G. O. Frey (to American Can Co., New York, N. Y.). U.S. 2,653,745, Sept. 29. A mechanism for sealing a container by frictionally engaging sealing parts of a hinge closure member with a container wall surrounding its dispensing opening, comprising a support for a container to be sealed.

Chain of Bags, C. W. Vogt, Norwalk, Conn. U.S. 2,653,751, Sept. 29. A plurality of bags each having side panels, connecting infolded gussets and a sealed bottom portion, each gusset having a strip of sheet material disposed therein at mouth of bag and of greater length than the width of the gussets.

Bag Assembly, C. W. Vogt, Norwalk, Conn. U.S. 2,653,752, Sept. 29. A bundle of flat distensible bags, each having a pair of opposed side walls and a pair of connecting walls infolded between first-mentioned pair, infolds of one connecting wall being spaced from the folds of the other, all of said walls being formed with an inner layer of heat-sealable material and an outer protecting layer.

Supplying Articles for Use in Packaging, C. W. Vogt, Norwalk, Conn. U.S. 2,653,813, Sept. 29. The method of supplying a sequence of V-shaped wrappers which comprises supporting a plurality of wrappers in nested relationship with their sides divergent, successively converging side-edge portions of leading ones of said wrappers to extricate the leading wrapper from said support.

Disintegrable Label and Washable Container Labeled There-with, L. R. Nestor (to Minnesota Mining & Mfg. Co., St. Paul, Minn.). U.S. 2,654,170 and 2,654,171, Oct. 6. A washable container carrying an adherently attached label and being substantially unaffected in appearance by active conditioning and storage in an ice chest, said label being capable of rapid removal and complete disintegration on washing of container with warm dilute caustic.

Display Carton, E. J. Borucki (to Container Corp. of America, Chicago, Ill.). U.S. 2,654,470, Oct. 6. A packaging and display carton composed of sheet material such as paperboard cut, scored, folded and secured into tube form and including spaced front and rear walls, side walls connecting and spacing the front and rear walls and flap means at each end of tube adapted, when folded and engaged, to retain said tube in expanded condition.

Sealed Package, L. L. Salsberg (to Ivers-Lee Co., Newark, N. J.). U.S. 2,654,471, Oct. 6. A package comprising opposed rectangular layers of package material thermoplastically sealed together in smooth flat zones along only three edge portions and spaced inwardly from the corresponding edges of said layers and forming a bag-like commodity-receiving compartment, layers being thermoplastically crimp sealed.

Lamp-Bulb Merchandising Package, R. T. White (to The Han-kins Container Co., Cleveland, Ohio). U.S. 2,654,472, Oct. 6. A lamp-bulb package comprising an open-ended tube of substantially square cross-section adapted closely to fit the maximum diameter of each lamp bulb to be packaged therein and made of single-faced corrugated paper, a pair of identical lamp bulbs each having a bulbous body portion tapering to a base end of reduced diameter, said bulbs being disposed with said tube with their base ends in overlapping nested relation and with their body portions frictionally engaging walls of tube at opposite ends of tube.

Package for Capped Containers, W. A. Ringler (to The Gardner Board & Carton Co., Middletown, Ohio). U.S. 2,654,474, Oct. 6. A package consisting of an assembly of capped containers and a paperboard structure for surrounding the assembly of containers, said paperboard structure comprising an elongated blank scored transversely to provide a substantially centrally disposed bottom panel, perforations with radially extending cuts forming locking tabs co-acting with lower edges of caps to secure top-wall panels in closed condition.

Can Package With Handle, J. R. Carpenter (to Container Corp. of America, Chicago, Ill.). U.S. 2,654,475, Oct. 6. A package comprising a carton, a plurality of cans packed in carton, each of cans having a circumferentially disposed flange at each end, a pair of openings in the carton adjacent opposite ends of one



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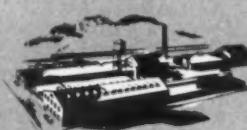


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of the cans packed therein and a detachable carrying handle comprising a strip of paperboard having its end portions projecting through the openings.

Apparatus for Filling and Compacting Material in Bags and Having a Retractable Bag Bottom-Abutment Member, H. V. Kindseth (to Bemis Bro. Bag Co., Minneapolis, Minn.). U.S. 2,654,518, Oct. 6. In this apparatus a supporting frame, a bag holder for supporting a bag in position under the discharge end of a packer tube to receive a charge, an arm having one end pivoted to frame and its opposite end to bag holder, means operatively connected with arm for imparting pivotal movement thereto in rapid succession.

Band-Applying Machine, H. G. Allen, G. E. Gampp and H. D. Smith (to American Machine & Foundry Co., a corporation of New Jersey). U.S. 2,654,520, Oct. 6. In a machine for applying banding sleeves to containers, the combination of a first, a second and a third conveyor, means for driving first conveyor at a predetermined linear speed, means for driving second conveyor at a linear speed greater than of first and means for supplying to second conveyor a series of containers in definitely spaced relation.

Tape-Dispensing Device, A. P. Krueger (to Derby Sealers, Inc., Derby, Conn.). U.S. 2,654,598, Oct. 6. In a machine for feeding pressure-sensitive tape, feeding means including a tape-adhering member to which the tape adheres, means to actuate member to effect feeding of the tape and a vibratory stripping member to engage the tacky side of the tape intermittently and strip it from feeding means.

Method of and Machine for Forming Linings, W. P. Drew (to Arkell Safety Bag Co., New York, N.Y.). U.S. 2,655,080, Oct. 13. The method of making articles of manufacture which comprises feeding two webs of paper longitudinally and positioning them together at a predetermined point as they are being fed, applying adhesive to the webs to cause their longitudinal margins to be secured together.

Carton Set-Up Machine, M. Burger (to General Package Corp., a corporation of Delaware). U.S. 2,655,081, Oct. 13. A machine for assembling and erecting a cellular carton which is characterized by a foldable body forming blanks adapted to be positioned in interlocking relation in aligned slots in the blank.

Box Construction, V. G. Moldt (to St. Regis Paper Co., New York, N.Y.). U.S. 2,655,283, Oct. 13. A tote box or the like formed with side walls which incline outwardly from the lower edges toward the top edges thereof, thereby making the side walls flare outwardly to facilitate nesting of such boxes.

Machine for Applying Screw Caps to Containers, J. Hohl and R. A. Pim (to Owens-Illinois Glass Co., a corporation of Ohio). U.S. 2,655,302, Oct. 13. A machine for applying screw caps to containers, comprising a container-advancing device mounted for rotation about a vertical axis and means for rotating said device intermittently step by step and thereby bringing containers singly and in succession to a cap-applying station.

Molded-Pulp Carton, J. W. Cox (to General Package Corp., a corporation of Delaware). U.S. 2,655,303, Oct. 13. A molded-pulp carton comprising a bottom section having upstanding walls, the space between the walls being divided into a plurality of article-receiving cells, a cover section comprising a top of an over-all width corresponding to that of the bottom section, said top having pairs of opposed side and end walls attached.

Collapsible Carton, W. H. Inman and R. M. Holmes (to Bloomer Bros. Co., Newark, N.Y.). U.S. 2,655,304, Oct. 13. A collapsible carton and self-erecting bottom comprising a one-piece blank cut, scored and folded to form four hinged connected side walls, a detachable connection between two of said side walls including a securing flap hingedly connected to one of said side walls and having a detachable adhesive connection to another of side walls, with a free edge portion adapted to be grasped and pulled for detachably connecting side walls.

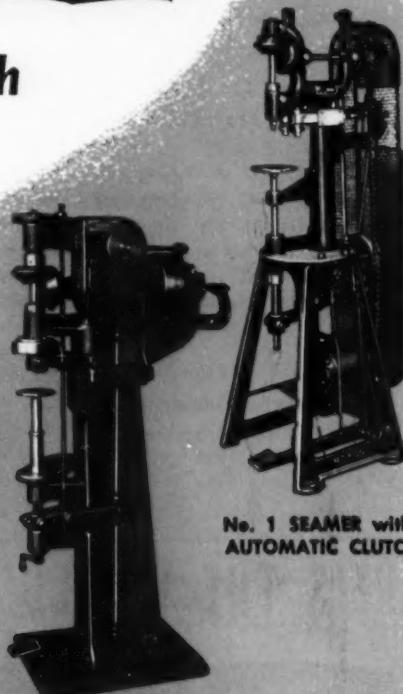
Machine for Mechanically, Electrically Measuring and Dispensing Gummed Tape, H. W. Hempel (to Marsh Stencil Machine Co., Belleville, Ill.). U.S. 2,655,372, Oct. 13. In a tape-measuring and dispensing machine, a support, a tape-feed member movably mounted thereon, electrical power means operatively connected to tape-feed member for moving same with measuring and presser member mounted on said support.

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Sorbic acid as a mold inhibitor

(This article continued from page 141)

(2) The wrapper must make close contact with the cheese so that an effective concentration of inhibitor can be set up before mold growth starts.

(3) The wrapper must be sealed to prevent recontamination after initial mold has been inhibited or destroyed and after migration of sorbic acid into the cheese has reduced substantially surface concentration of sorbic acid.

Conclusions

It is apparent that sorbic acid is an effective fungistatic agent for use on cheese wrappers when good wrapper-cheese contact, good packaging and reasonable sanitation are obtained. The full story on sorbic acid will appear in *Food Research* as a series of publications from four different laboratories.

Summary

After extensive screening, sorbic acid has been selected as the most practical fungistatic agent presently available for use on cheese wrappers. It is shown that 2.5 gm. of sorbic acid

per 1,000 sq. in. of thermoplastic coated cellophane wrapper gives good protection for process cheese (Chart I) and that higher amounts are required to protect American cheese and other natural cheese where enzyme activity has not been stopped. Harmlessness, metabolic fate and fungistatic mechanism of sorbic acid have been established.

References and acknowledgements

The use of sorbic acid on cheese wrappers is the first general commercial use of this material. (The trade name Milpure was coined to avoid confusion between sorbic acid and ascorbic acid-vitamin C.) This development is so new that the technical reference articles are still being prepared for publication. Most of the data in this article was presented by Dr. H. W. Vahlteich, Best Foods, Inc.; Dr. H. J. Deuel, University of Southern California; Dr. Daniel Melnick, Best Foods, Inc., and D. P. Smith of Milprint, Inc., at the 13th annual meeting of the Institute of Food Technologists held in Boston, June 24,

1953. The extensive scientific efforts of the laboratories represented, as well as those of Dr. Henry Smyth of Mellon Institute and Dr. A. J. Lehman and others of the Pharmacology Div. of the Food and Drug Administration, must be respectfully and gratefully acknowledged by the authors of this article.

The wrapping materials used were Klingseal types manufactured by Milprint, Inc., 4200 N. Holton St., Milwaukee, Wis. The sorbic acid used was manufactured by Carbide & Carbon Chemical Co., 30 E. 42 St., New York.

The commercial wrapping machine used is the Campbell wrapper made by Hudson-Sharp Machine Co., Green Bay, Wis.

Application of sorbic acid as a fungistatic agent is covered by United States Patent No. 2,379,294 (C. M. Gooding), assigned to Best Foods, Inc., 1 E. 43 St., New York 17. Milpure wrappers for cheese and other products can be obtained from Milprint, Inc., without the need for specific patent licensing.

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Decanter boom

(This article continued from page 104)
the ornaments on the gift boxes.

An instruction sheet for the retailer, telling how to wrap the gift boxes to protect the three-dimensional embellishment, and individual cardboard protectors in perforated sheet form are placed in the case before it is sealed. As a final touch, there is a paper wrap-around, reported to be one of the first in the liquor industry, which can transform the case into a ready-to-use window display or floor stacker. The colorful wrap-around, which depicts the Old Forester decanter and gift box, covers three sides of the case.

That's liquor merchandising in 1953.

CREDITS (In so far as available): Schenley—Decanter, Anchor Hocking Glass Corp., Lancaster, Ohio; Thatcher Glass Mfg. Co., Inc., Elmira, N. Y.; Armstrong Cork Co., Liberty St., Lancaster, Pa.; Ball Bros. Co., Inc., Muncie, Ind.; Brockway Glass Co., Inc., Seventh Ave., Brockway, Pa.; Hazel-Atlas Glass Co., 15th & Jacob Sts., Wheeling, W. Va.; Foster-Forbes Glass Co., E. Charles St., Marion, Ind.; Glass Containers, Inc., 3601 Santa Fe Ave., Los Angeles, Calif. Glass stoppers, Anchor Hocking Glass Corp. and Hazel-Atlas Glass Co. Labels, Muirson Label Co., Inc., 435 Stockton Ave., San Jose, Calif. Polyethylene ring, Lumelite Corp., Pauling, N. Y., and Wheeling Stamping Co., 2116 Water St., Wheeling, W. Va. Corks, Mundet Cork Corp., 7101 Tonnelle Ave., No. Bergen, N. J.; Dodge Cork Co., Inc., Laurel & Manor Sts., Lancaster, Pa.; Arco Crown Cork & Cap Co., Inc., 184 Imlay St., Brooklyn, N. Y.; Armstrong Cork Co. Carton, The U. S. Printing & Lithograph Co., 340 Beech St., Cincinnati, Ohio, and American Colorotype Co., Clifton, N. J.

Tom Moore—Decanter, Ball Bros. Co., Inc., Muncie, Ind. Glass stopper, Indiana Glass Co., Dunkirk, Ind. Cork, Armstrong Cork Co., Lancaster, Pa. Shield, F. E. Mason & Sons, Batavia, N. Y. Labels, Fleming-Potter Co., Inc., Peoria, Ill. Carton, Carton Craftsman, Inc., 813 N. Franklin St., Chicago 10. Printed ribbon tape, A. M. Steigerwald Co., 910 W. Van Buren St., Chicago 7.

Melrose—Decanter and stopper, Owens-Illinois Glass Co., Toledo 1, Ohio. Labels, The U. S. Printing & Lithograph Co. Polyethylene ring, Lumelite Corp.

Old Taylor—Decanter, Owens-Illinois Glass Co. Designer, Raymond Loewy Associates, 488 Madison Ave., New York 22. Corks, Armstrong Cork Co. and Atlas Cork Works, Inc., 22 Morton St., Brooklyn, N. Y. Adhesives, Adhesive Products

Corp., 1660 Boone Ave., New York 60. Cellulose bands, E. I. duPont de Nemours & Co., Inc., Wilmington, Del. Cartons, Robert Gair Co., Inc., 155 E. 44 St., New York 17.

Park & Tilford—Decanter and stopper, Owens-Illinois Glass Co. Labels, Consolidated Lithographing Corp., Carle Place, L. I., N. Y. Cork, Dodge Cork Co., Lancaster, Pa. Cellulose bands, E. I. duPont de Nemours & Co., Inc. Cartons, Lord Baltimore Press, 1601 Edison Highway, Baltimore 13, Md.

Canada Dry F.O.B. Bourbon—Decanter and stopper, Foster-Forbes Glass Co. Label, American Label Co., 216 W. 18 St., New York. Adhesive, Adhesive Products Corp. Carton, The New Haven Board & Carton Co., 259 East St., New Haven 8, Conn.

James B. Beam—Decanter stopper and ACL labeling, Owens-Illinois Glass Co. Closures, Armstrong Cork Co., using Bakelite phenolic.

Kentucky Tavern—Decanter, stopper and ACL labeling, Owens-Illinois Glass Co. Acetate box, Central States Paper & Bag Co., 5221 Natural Bridge, St. Louis 15, Mo.

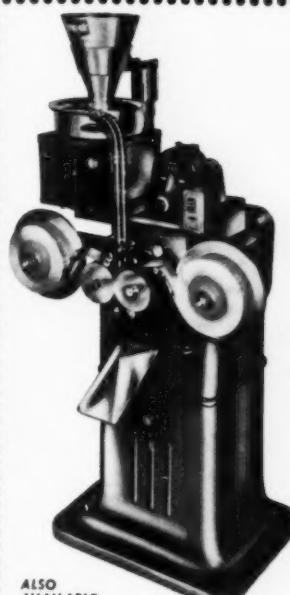
Old Forester—Decanter, stopper and ACL labeling, Owens-Illinois Glass Co. Decorations for Old Forester cartons, Strauss-Golman Co., Dallas, Tex. Cartons, Niagara Lithographing Co., 1050 Niagara St., Buffalo, N. Y.

New research center

The Plastics Div. of Monsanto Chemical Co. at Springfield, Mass., has announced a technical service and development program that will include a new research center for customers and industry in the plastics field. Financing of the program has been set at \$1,250,000. The new venture will intensify both the daily and long-range research for new markets and new applications for plastic materials.

The research center will provide 44,000 sq. ft. of floor space at Springfield and facilities for 125 technical personnel assigned exclusively to the new project. Technical service engineers in constant contact with customers and their problems will conduct experimental work alongside staff research personnel. Location of these teams near regular research groups is expected to provide better coordination in modifications of plastic materials required by the customer.

When completed late in 1954, the center will be a three-story brick and steel building also housing conference rooms and exhibition areas.



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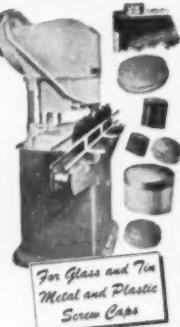
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Molded plastics find a place

(This article continued from page 95) an ideal answer. One characteristic many of these items have in common is the fact that they are kept and used for long periods and must frequently be carried about by the purchaser. It is easy to see, for example, why sun glasses require a sturdy, attractive case that is not easily crushed or broken and which will protect the glasses in traveling.

Ronson Art Metal Works, Inc., manufacturers of Ronson lighters, recently began marketing its new Ronson Liter-Kit, containing five extra-length lighter flints, a wick, an inserter and a cleaning brush (Fig. 22). Ronson chose a hinged molded polystyrene container with a blue base and a transparent cover. The base section has an island-like center with small cavities which hold the flints. Space around the outside of the elevated base allows just the right amount of room for the wick, brush and inserter. The recessed lid, molded with a snap-shut-type latch, is hinged so that it fits closely down across the contents of the package when closed, preventing loss or rattling. The compact package can be carried conveniently in the pocket. Trade identification is molded in the transparent cover. On many small containers of this type, the letters are molded in relief on the underside of the lid so that they pick up reflected light and show up clearly without the need for wiping in or other supplementary operations.

A combination of a jet-black base and a clear, transparent, hinged cover is effectively employed by Tek Hughes, Inc., New York, in a molded polystyrene container just adopted for a new "Satin-Glo" comb and brush set (Fig. 2). The attractive container measuring 8 1/4 in. long by 2 13/16 in. wide and 2 1/2 in. high, has the Hughes name molded in relief on the underside of the cover and is lined with satin.

Speed Products Co., Long Island City, N. Y., has used most successfully a molded polystyrene package for its Tot 50 stapler (Fig. 16). This package is made with a compartmented base molded in dark blue and a dome-like transparent snap-shut cover with the name of the product and other information molded in. The base is divided to provide separate storage for the stapler and extra

staples. The cover has a partition on the inner side to keep the staples from spilling into the other side of the package.

Molded polystyrene dispenser-type packs for razor blades which feed a single blade at a time have virtually revolutionized razor-blade packaging since Gillette introduced the first one a few years ago.³

An interesting example of molded plastic packages for electric shavers is a current one for the Sunbeam Shavemaster designed so that the electric cord, on a reel, snaps into the hollow base of the package, beneath the shaver itself (Fig. 4). This case is molded in variegated brown and black material, notable for its finish. It carries the words "Sunbeam Shavemaster" hot stamped in gold on the underside of the hinged lid.

For photographic filters, Eastman Kodak Co. uses a group of attractive molded plastic containers combining a black base with a familiar Kodak cover.

Skan Photographic Div., G-M Laboratories, Inc., Chicago, is using a hinged polystyrene case for two types of exposure meters. The cases, molded in clear transparent material, are used with a die-cut paperboard base into which the meters are fitted. The cases are equipped with snap-shut covers and can be conveniently carried in the pocket.

Pharmaceuticals and cosmetics

In the pharmaceutical field molded plastic containers in a variety of designs are widely used where the container is intended to be used for an extended period to store or transport the product, where special protection is required, or where product visibility may be employed as a sales stimulant.

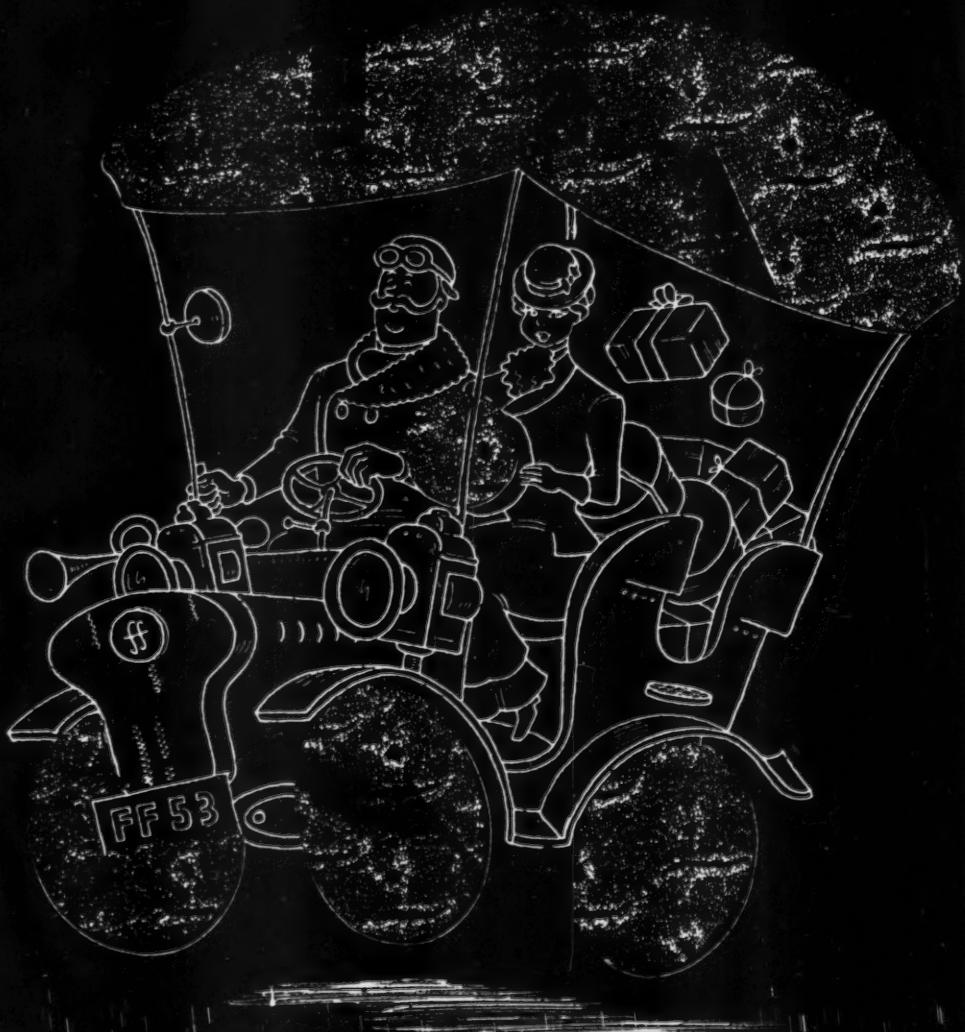
Johnson & Johnson's molded polyethylene package for first-aid supplies is designed with a self-hinged cover. Among the advantages of this container are its translucence, its light weight, extreme durability, its unbreakable feature and the fact that due to the softness of the material it could be carried in the glove compartment of a car without rattling. The box is designed with integrally

³ See "Blade Time Saver," MODERN PACKAGING, Nov., 1947, p. 114; "Gillette Razors and Blades," (Packaging's Hall of Fame), MODERN PACKAGING, May, 1951, p. 92; "Package Forms," MODERN PACKAGING, March, 1952, p. 130.



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molded compartments in the base for the various items.

Medical Supply Co., Rockford, Ill., has adopted slip-cover boxes molded of cellulose acetate butyrate for compact new individual Snake Bite and First Aid kits (Fig. 8). The packages were designed especially for construction crews, railroad gangs and other outdoor workers.

For a sampling program to physicians for its family of Appliderm ointments and lotions for eczema and other skin disorders, White Laboratories, Inc., wanted a molded container with lift-off top, similar in appearance to the traditional apothecary jar (Fig. 1). It was desired to duplicate the pottery-type finish of the original apothecary jar and to mold the container in a light, unbreakable plastic material. The material chosen for this unusual package was a pure white modified polystyrene, sufficiently tough to resist breakage in shipment and capable of being molded with very little taper in the side walls. A colorful decal-type label, designed in the rococo style characteristic of old-style drug labels, identifies the product. White Laboratories sent the jars to 20,000 physicians in the U. S. to launch a full-scale promotion of their new medicinals.

Surgical textile sutures are easy to identify in a rigid transparent plastic package used by Ethicon Suture Laboratories, Inc., New Brunswick, N. J. (Fig. 10). The two-piece container, molded of polystyrene, is designed with a molded spindle within the base which holds the suture spool. The color of the opaque base signals the type of suture—red for silk, green for nylon and blue for cotton.

A new approach to the packaging of ointments has been made by The Upjohn Co., Kalamazoo, Mich., for its Cortef brand of hydrocortisone ointment. According to company representatives, the hinged, transparent polystyrene container provides an easier-to-read label and sufficient rigidity to protect the tube from damage (Fig. 9). The tube of ointment is fitted into the base section by means of a tray formed of a styrene-rubber copolymer by the vacuum molding process. The blue tray also gives color and a custom look to the package.

Upjohn is also using a novelty polystyrene package in the form of a toy boat for distributing to physi-

cians' samples of pharmaceutical products for children.⁴

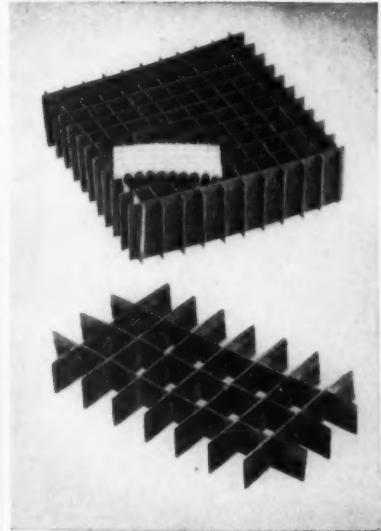
Weco Products Co., Chicago, is using a specially designed molded polystyrene package for its Dr. West denture brushes. The packages, made in two halves which snap together securely, double effectively as a travel case for the brushes.

The cosmetic industry, in which novelty and attractive appearance are paramount, has been one of the leading users of molded plastic packaging. Today there is scarcely a leading cosmetic house which does not have on the market a popular-priced decorative plastic compact for compressed face powder. Coty has even reproduced its famous L'Origan powder-puff design on the cover of a plastic compact. The squeeze bottle continually gains favor for a longer list of deodorants and lotions. Molded polyethylene jars are being used for face creams, eye creams and other beauty aids. Molded polystyrene boxes of hinged constructions make convenient and attractive cases for eye-shadow kits, manicure sets and travel kits. Park & Tilford is distributing its improved Winx mascara in a molded polystyrene purse-package, hinged to open like a change purse and grooved in the base to hold brush and mascara in place (Fig. 23). Cosmetic firms also are making considerable use of molded clear transparent plastic boxes for perfumes and beauty aids. Park & Tilford, for instance, puts bottles of perfume in a molded polystyrene box with fabricated platform insert of polystyrene foam to hold the bottles (Fig. 21).

Molded plastic packages have, indeed, been developed to a point where they are no longer a mere luxury medium. Many have definite functional purpose. Many are extremely essential in giving the added merchandise appeal needed in today's markets. They have earned a leading place among contemporary packaging forms.

CREDITS (according to numbers with photo legends): 1. Molder, Dillon-Beck Mfg. Co., Hillside, N.J., using Koppers modified polystyrene MC 405. Squeeze bottle, Plas Corp., Box 1019, Hartford, Conn. 2. Molder, Autograf Brush & Plastics Co., 2320 Sixth Ave., Waterbury, N.Y., using Koppers polystyrene. 3. Molder, Molded Plastic Div., General Industries Co., Elyria, Ohio, using Bakelite

⁴See "Get 'Em Young," MODERN PACKAGING, Nov., 1953, p. 91.



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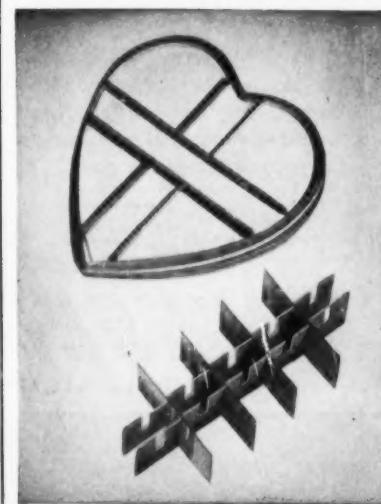
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polystyrene. 4. Molder, Chicago Molded Products Corp., 1046 N. Kolmar Ave., Chicago 51. 5. Molder, Mutual Plastic Mold Co., South Gate, Calif. 6. Molder, Tri-State Plastic Molding Co., Inc., Henderson, Ky. 7. Tite-Lock containers molded by Massachusetts Plastic Corp., Ludlow, Mass., using Dow Chemical Co. Styron. 8. Molder, Rockford Molded Products, Inc., 2230 Kishwaukee St., Rockford, Ill., using Eastman Chemical Products, Inc., Tenite II. 9. Molder, Hake Plastics Box Corp., Depew, N.Y. Tray material, U. S. Rubber Co.'s Royalite. 10. Molder, Tri-State Plastic Molding Co., Inc., Henderson, Ky. 11. Molder, F. J. Kirk Molding Co., Clinton, Mass., using Monsanto Lustrex polystyrene. 12. Molder, Michigan Molded Plastics, Inc., Dexter, Mich., using Monsanto Lustrex. 13. Material, Monsanto Lustrex. 14. Cover molded by Buckeye Molding Co., Miamisburg, Ohio; base molded by Van Norman Molding Co., 4631 Cottage Grove, Chicago, using American Cyanamid Beetle urea SB-94. 15. Material, Monsanto Lustrex polystyrene. 16. Molder, Scarlar Co., Paterson, N.J., using Dow Chemical Co.'s Styron. 17. Vials, Celluplastic Corp., 50 Ave. L., Newark, N. J., using Celanese Corp. of America acetate. 18. Molder, Pan American Plastics, Dallas, Tex., using Celanese acetate. 19. Molder, Park Plastics Co., 940 Park Ave., Linden, N.J., using Eastman Chemical Products, Inc., Tenite II. 20. Package produced by Braun-Crystal Mfg. Co., Inc., 69-01 Metropolitan Ave., Middle Village, N.Y. 21. Molder, Miller Plastics Co., Richmond Hill, Long Island, N.Y.; platforms made of Dow Chemical Co. Styrofoam. 22. Molder, Plastics Mfg. Co., Orange, N.J. 23. Molder, Hake Plastic Box Corp., Depew, N.Y. 24. Molder, Ulchek Tool Co., 3001 E. 87 St., Cleveland 4, Ohio.

Tank trucks ship freon

Tank-truck shipments of freon fluorinated hydrocarbon have been initiated by E. I. du Pont de Nemours & Co., Inc., Wilmington, Del., to help satisfy increasing demands of quantity users of the aerosol propellant. Semi-trailer trucks, with a capacity of 35,000 lbs., or 3,600 gal., of the liquefied gas that provides dispensing pressure in aerosol products, are being used for such shipments. Truck deliveries mark the company's second move within six months to help aerosol manufacturers minimize handling of propellant. Last May the company's "Kinetic" Chemicals Div. began shipping freon to large users in specially fitted railroad tank cars of 65,000-lb. capacity—enough propellant to load more than 100,000 average-sized aerosol products.

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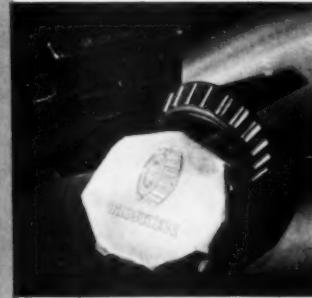
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Miniature glass aerosol

Innovations that may have a far-reaching effect on the future of pressurized packages are incorporated in a new 2-oz. all-glass aerosol for cologne, introduced for export trade by Zonite Products Corp., New York.

The new aerosol is the first pressur-



ALL-GLASS, 2-oz. bottle adopted for cologne aerosol, now being test marketed in export trade, is expected to be the forerunner of significant aerosol developments involving personal products attractively and safely packaged in small-sized glass containers.

ized package to use glass alone for the prime container and it features a miniature size that is certain to stir aerosol interest in a number of fields—especially for personal products, including perfumes, anti-perspirants and the like.

The most important developments in regard to this aerosol are safety and practical formulation of propellant and active ingredient. The Zonite cologne bottle is a strong commercial grade of glass, shaped for sturdy structural design. The formulation is regulated for a low pressure range of only 9 to 12 lbs. at 70 deg. F.

South American markets were chosen for preliminary tests. Products of companies other than Zonite, and filled in miniature glass aerosols under licensing arrangements with Zonite, are expected to hit U.S. markets within the next month or two.

Early this year, Zonite helped make aerosol history when it introduced its Larvex aerosol package consisting of a glass bottle, fibreboard outer safety sheath and an all-plastic valve. (See "The First Glass Aerosol," MODERN PACKAGING, Jan., 1953, p. 99.) This aerosol pioneered a new three-phase principle of operation especially designed to make the aerosol practical

for an aqueous-type solution. A companion product, "Myna Glass Cleaner," has recently been introduced in an exactly similar glass-fibreboard container.

The new miniature all-glass aerosol for cologne is a two-phase aerosol, but it can be adapted to three-phase operation, as well as for mist and heavy spray dispensing. It incorporates a large degree of novelty, for it operates right before the user's eyes. The attractiveness of glass makes it a desirable container for the dressing table. Reportedly, it operates with complete push-button efficiency, discharging the contents to the last drop.

CREDITS: Bottles, T. C. Wheaton Co., Wheaton Ave., Millville, N. J. Freon "114" propellant, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. All-plastic valves, Calmar Co., 6800 McKinley Ave., Los Angeles 1, Calif., and Risdon Mfg. Co., Naugatuck, Conn.

Coffee-pack survey

A survey on coffee-buying habits shows that over half of U. S. urban families now purchase their coffee in vacuum-packed metal cans, according to American Can Co., New York, which conducted the survey.

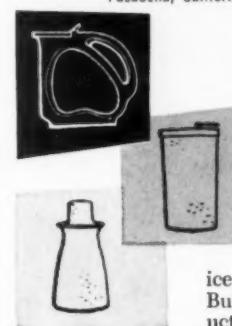
The actual percentage (54.5%) represents a gain of almost 3% over 1952 purchases. This is regarded by the company as substantial in view of two facts: (1) the sharp increase in the use of soluble (instant) coffees, which now have 16.7% of the 1953 total market, or almost double the share they had in 1950, and (2) the long-term nature of the trend to vacuum-packaged coffees, which has been going on for a number of years.

The four-year Canco study was conducted by means of thousands of home calls in 125 U. S. cities and, among other things, shows that 3.2% of the market tested buys no coffee at all.

The home-market test was based, according to Canco, on the housewife's "buying behavior" on the occasion of her most recent coffee purchase, so that findings would reflect habits rather than sales volume or consumption. Housewives polled were asked what the words "vacuum packed" on a coffee can meant to them. Forty per cent said "airtight," 36% said "freshness and flavor," while 4% said "a good, pure product," making a total of 80% with a favorable impression of the term.

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WVP of shippers

(This article continued from page 145)
3 (c), if it is not practicable to weigh the entire container with the desiccant inside.

Test specimens

7. Test specimens shall be representative of the containers being tested and shall be closed and sealed in the normal manner. For containers that cannot be weighed to the accuracy prescribed in Section 3 (b), with desiccant inside, an auxiliary opening large enough to permit inserting the desiccant receptacle shall be cut in one face. A means of sealing the opening during the test shall be provided that will permit repeated opening and reclosing during the test. Closure of this handhole can be accomplished with a piece of sheet metal, or other impervious sheeting somewhat larger than the opening, sealing it in place with wax (see Note), or forming an equally impervious seal by other means.

NOTE: A mixture of microcrystalline and paraffin waxes is suitable for this purpose.

Procedure

8. (a) For containers, such as ordinary shipping sacks, that can be weighed accurately to requirements prescribed in Section 3 (b), place the selected quantity of desiccant or product inside the container, which shall be closed and sealed in the normal manner. Weigh the specimen and contents before the start of the test. Subject the specimen to one exposure cycle as described in Section 5 (b) and make successive weighings at the completion of each cycle until a constant rate of gain is established, as described in Section 5 (c).

(b) For specimens that are not practicable to weigh as described in Paragraph (a), proceed exactly as in Section 5, except that the auxiliary opening described in Section 7 shall be used as the access opening. The regular closure is to remain sealed throughout the test.

Report

9. The report shall include the following:

(1) Identification of the container, including data on closure, liners, etc.

(2) Desiccant used, or identification of the contents if a product is

used. When a desiccant is used, the volume and area exposed shall be specified.

(3) Temperature, relative humidity and time for each test atmosphere of the cycle at which the test was conducted.

(4) Water-vapor permeability, reported as grams of water per cycle for the package as a unit. Make the calculation for the period of constant rate of gain. If a product is used instead of a desiccant, report the moisture content at the start and completion of each cycle, together with the net weight of the contents, from which data the actual amount of water pick-up can be calculated.

(5) Data on any previous tests to which the specimens might have been subjected.

(6) A statement to the effect that all tests were made in accordance with this method.

Standards for cases

(This article continued from page 115) large letters, is identification of the product as "fancy tuna." Two blank areas, comparable to the price mark almost always found on packages themselves, are placed in the lower right- and left-hand corners for warehouse code numbers. Quick identification is made easier by the blue color of cartons containing the solid-pack tuna and green for those containing the chunk style. These colors also correspond to the colors of the labels on the cans.

Other food manufacturers have shown genuine interest in the suggestions of the food retailers and distributors, but are unable to change designs until their present stocks of printed cartons are exhausted.

It should be mentioned that a number of manufacturers have been found to have cartons, which, if they don't follow the recommendations down to the last details, are at least close enough to make for efficient warehousing. Mr. Thomas has found acceptable, in his own operations at Certified Grocers, the cartons of Campbell's Tomato Juice, Gerber's Baby Foods and Yes Tissues, among others. The Yes name is printed in exceptionally large type, as is the contents designation of "36 boxes" and the ordering number. Though in much smaller cartons, product name and count are also well defined on the Campbell and Gerber cartons.

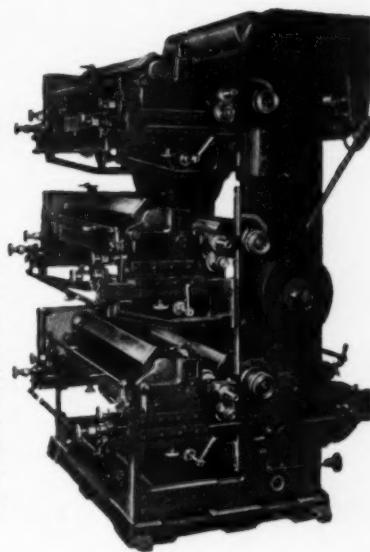
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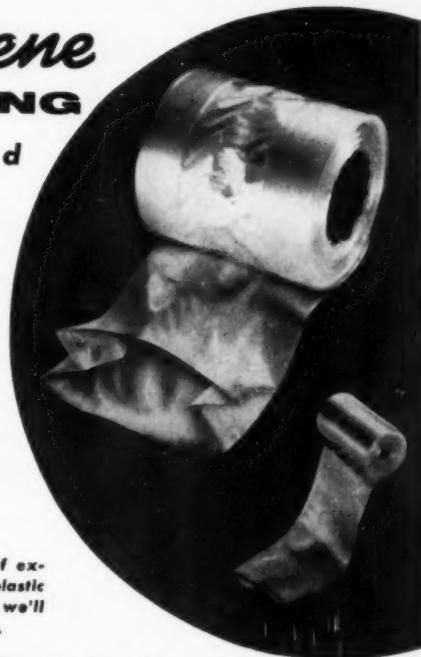
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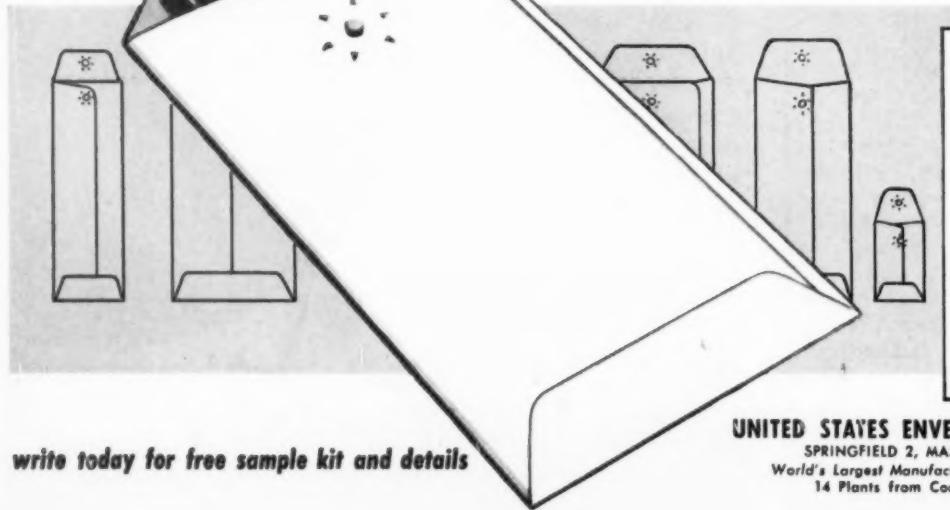
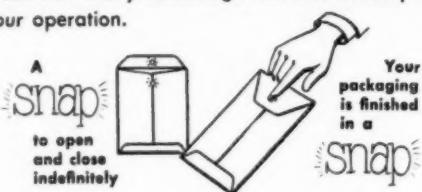
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MARKING MACHINES. Folder illustrates and describes the function of twenty manually-operated and fully automatic code-dating and imprinting machines for marking products and packages in one or two colors. Adolph Gotscho, Inc. (L-351)

FOOD PACKAGING. Booklet describes sixteen different automatic filling, packaging, and weighing machines for dry food products. Fr. Hesser. (L-352)

180° BALANCED PREFOLDING AND GLUING. Handbook on the "Speed King" gluer explains the advantages of 180° balanced prefolding and gluing of folding cartons. Discusses the function of the machine and the various special features it offers. The International Paper Box Machine Company. (L-353)

CUTTER FOR HEAVY MATERIALS. Bulletin with information on the "Fibrecutter," a hand-operated or crank-driven unit for cutting problem materials such as double-face corrugated, "V" board, cloth-backed foil, heavy chipboard, cellulose wadding, etc. Fibleco Illinois Corp. (L-354)

PYROXYLIN PAPERS. Folder contains seventeen sample sheets of Artcote pyroxylin pastel packaging papers and boards. Weights include 60 pound, gummed and ungummed, and 7, 10, and 15 point. Artcote Papers, Inc. (L-355)

WEIGHING AND FILLING MACHINES. Data on semi- and fully-automatic "Elec-Tri-Pak" machines for precision weighing and filling a large variety of products into bags, cans, jars, cartons, and envelopes. Triangle Package Machinery Co. (L-356)

HEATED PROCESSING TANKS. Electrical and gas heated tanks for heating, melting and dipping plastics, waxes and similar compounds are discussed in a bulletin issued by Aeroil Products Co., Inc. (L-357)

HEAT SEALING CRIMPERS. Brochure illustrates and describes the complete line of Wrap-Ade heat sealing crimpers—both automatic and semi-automatic. Includes illustrations of the various sealing patterns available. Wrap-Ade Machinery Co., Inc. (L-358)

AUTOMATIC PACKAGING MACHINES. Data on the operation of Clybourn machines for automatic bag filling and sealing, for filling and sealing lined cartons, for filling powder products, and for loading and sealing tuck-end cartons. Clybourn Machine Corp. (L-359)

DRY LABELING ON DIFFICULT SURFACES. Details about the operation of the Lakso labeler for applying thermoplastic dry labels to hot, cold, wet, or dry surfaces such as polyethylene, wax paper, aluminum, fibreboard, etc. The Lakso Co., Inc. (L-360)

SLITTING MACHINE. Bulletin covers the features and operation of the Goebel precision roll slitting machine, Model O D, for slitting roll materials a minimum width of $\frac{1}{2}$ mm. Clark-Aiken Company. (L-361)

CARTONING MACHINES. Folder shows a variety of fully automatic and semi-automatic continuous motion cartoning machines for handling products of different sizes and shapes. Standard-Knapp, Div. of Embart Mfg. Co. (L-362)

FOLDING CARTON STYLES. Booklet illustrates thirty-four different styles of folding carton construction plus several additional patented variations. Check list of points to be considered when developing and ordering cartons. Robert Gair Co., Inc. (L-363)

STOCK PLASTIC BOXES. Folder illustrates twenty-nine stock plastic boxes which are available in small or large quantities without mold cost. Bradley Industries. (L-364)

PREPACKAGING CHEESE. Booklet suggests methods of handling "Pliofilm" for packaging natural aged cheese for self-service outlets. Step-by-step illustrations. Good-year Tire and Rubber Company. (L-365)

ENVELOPE MANUFACTURE. A forum-in-print explains the steps taken by this company to assure the purchasing agent, the printer and the users satisfaction with their envelopes. U. S. Envelope Company. (L-366)

MULTI-WALL SHIPPING SACK. Description of "KRAFT-lok" valve-type gusseted bags, for packaging free-flowing granular or pulverized materials, in which an integral sleeve replaces standard inserts and sleeves, for cleaner filling and tighter closures. Kraft Bag Corp. (L-367)

PACKAGING IN SARAN. Folder illustrates a number of food products which are successfully packaged in saran plastic film. Points out various advantages. Dow Chemical Co. (L-368)

INDUSTRIAL MARKING EQUIPMENT. In addition to describing company's line of industrial marking and carton printing equipment, this booklet contains an instruction manual outlining techniques for ink selection and equipment operation. Industrial Marking Equipment Co., Inc. (L-369)

INDUSTRIAL PACKAGING. A full range of laminated and single ply flexible packaging materials and containers for protective packaging of industrial parts and products are described in a folder issued by Kennedy Car Liner & Bag Co., Inc. (L-370)

SHEET COATING & GLUING MACHINES. Data on the operation of a labor-saving unit for applying a controlled, even coating of glues, latex, resin, lacquer or other similar material to sheets up to $\frac{1}{2}$ " thick. Potdevin Machine Co. (L-371)

PNEUMATIC VIBRATORS. Catalog features a line of pneumatically-operated bin and hopper vibrators and vibrating tables for assuring positive filling in many packaging operations. The Cleveland Vibrator Company. (L-372)

CUTTER-CREASER FOR CARTONS. Bulletin gives full operational details on a new high-speed machine with rated output up to 10,500 cartons per hour. Data includes complete specifications, mechanical description as well as charts and diagrams. Champlain Co., Inc. (L-373)

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POLYETHYLENE PACKAGING MATERIALS. Folder lists the advantages of polyethylene bags, tubing, and drum and carton liners extruded and fabricated by Poly Plastic Products, Inc. (IL-374)

CONVEYOR EQUIPMENT. Catalog depicts a full line of gravity and power conveyors, together with such accessory equipment as switching mechanisms, retarders, guard rails and boosters. Contains detailed specifications and capacity ratings. Speedways Conveyors, Inc. (IL-375)

ELECTRONIC METAL DETECTOR. Material on an electronic unit to protect packaging lines from magnetic and non-magnetic tramp metal. Radio Corporation of America. (IL-376)

RUBBER PLATE MOUNTER-PROOFER. Explanation of how this machine reduces operating costs and improves printing quality by enabling the user to check cylinder concentricity, to mount plates on cylinders and to take accurate color proofs of a job before it reaches the press. Moss-type Materials, Inc. (IL-377)

CLUTCHES AND BRAKES FOR PACKAGING EQUIPMENT. Information on the use of Warner electric clutches and brakes on packaging machines for smoother and faster starting and stopping, reduction of vibration and maintenance, and improved speed control. Warner Electric Brake and Clutch Co. (IL-378)

LABELING ROUND CONTAINERS. Technical service bulletin illustrates all current machines for automatic or semi-automatic labeling of glass jars, bottles, tin cans, and fiber-bodied cans. Lists Paisley labeling adhesives and labeling methods. Paisley Products, Inc. (IL-379)

EXPORT PACKING SERVICE. Data in the facilities and type work done by this company for the armed services, electronics manufacturers, government contractors, common carriers, and others who have need of climate-proof packaging. Cargo Packers, Inc. (IL-380)

SILICONE ADHESIVES. Data on silicone pressure sensitive tapes which remain pliable and retain their adhesive strength over a wide temperature range, give good adhesion to materials such as metals, glass, fabrics, polyethylene, "Teflon" and other materials. Dow Corning Corp. (IL-381)

PALLET DOLLIES. Booklet describes several varieties of pallet dollies for facilitating the handling, loading and unloading of palletized merchandise. Samuel Olson Mfg. Company, Inc. (IL-382)

BEMIS "QUANTACOLOR" BAGS. Booklet explains the "Quantacolor" method for selecting the most suitable combination of colors for a package, and its relationship to Bemis service. Bemis Bro. Bag Co. (IL-383)

ADJUSTABLE CORRUGATED CARTON MACHINE. Details about the economics and advantages of the "Rite-Size" box machine for manufacturing a wide range of different size corrugated cartons with minimum set-up time and expense. Colt's Mfg. Co. (IL-384)

SHIPPING CASE SEALER. Folder explains the operation and advantages of a unique new case sealer which preheats the flaps of standard shipping cases before applying glue and holds the flaps in position until the glue sets. Chisholm-Ryder Co., Inc. (IL-385)

DRY AND HEAT SEAL LABELING. Booklet explains the influences of good labeling on impulse sales and covers the features of "Pervenac" labels for delayed tack and "Inac" labels for instant tack. Nashua Corporation. (IL-386)

BOX MAKING EQUIPMENT. Catalog presents company's complete line of paper box making equipment including box wrappers, quad stayers, wrap gluers, and cutters with full specifications, descriptions, and methods of operation for each. Stokes & Smith Co. (IL-387)

FLEXIBLE BAG TIES. Leaflet on the use of plain and printed wire-core vinyl Plas-Ties to keep products in bags made of Pliofilm polyethylene, cellophane and other materials. Plas-Ties Company. (IL-388)

WEB UNROLLS. Five styles of unrolls and various types of web processing are described in a folder issued by John Waldrön Corporation. (IL-389)

FLAT STRIPPING UNIT. Information on the "Edgemaster" for flat stripping and turn edge stripping materials from a single sheet to $\frac{1}{2}$ " with pressure sensitive or water activated gummed tape. Gane Brothers and Lane, Inc. (IL-390)

FLEXIBLE LAMINATED PAPERS. Portfolio contains sample sheets of creped, glass fiber-reinforced, and similar laminated papers for use in protective packaging. Cromwell Paper Co. (IL-391)

"VISKON" NONWOVEN FABRICS. Booklet contains samples of "Viskon" nonwoven cotton and rayon fabrics which are heat sealable, exceptionally porous, wet strength and sanitary for food packaging applications. The Viskon Corporation. (IL-392)

PACKAGING WITH "GEON" VINYL RESINS. Eight case histories show how vinyl resins are used to protect packages from grease and moisture, to increase abrasion resistance and to perform other packaging functions. B. F. Goodrich Chemical Company. (IL-393)

STEEL WIRE COIL HOLDERS. Data on how Acme coil holders improve wire stitching operations by feeding wire uniformly and smoothly and by minimizing stitcher wear. Acme Steel Co. (IL-394)

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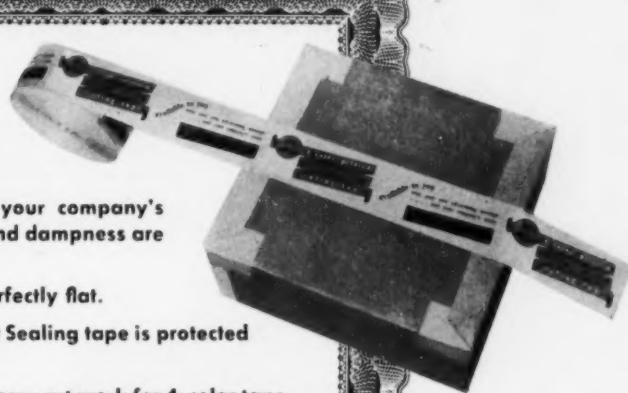
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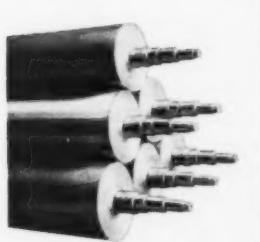
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Flexible WVP barriers

(This article continued from page 143) sure a tight pack and, secondly, the material should not be overstressed or subjected to possible puncturing hazards.

At present, MIL-B-131B covers two classes of materials. Class 1 is intended as a general-purpose material. Class 2 material is considered suitable for use for packages where the combined weight inside the barrier does not exceed 10 lbs. and where the combined dimensions do not exceed 40 in. It is further suggested that Class 2 material not be used for floating-bag applications or in packaging operations under low-temperature conditions.

It should be noted that MIL-B-131B is a material procurement document and as such can only indicate intention in regard to the applicability of the two classes of materials for specific converted forms or packaging operations.

The direct specification of which class of barrier material shall be used is left as a function of other documents.

However, in working with MIL-B-131B it has become apparent that there are specialized applications, some of considerable volume, which lend themselves to the use of flexible water-vaporproof barriers other than those now covered by the existing specification because of particular performance requirements and/or from the cost standpoint. One such case is in connection with the automatic packaging of very light, regularly shaped items requiring of the barrier little resistance to impact, with little stress on the seals. It is obvious that a less expensive material than those now procurable under MIL-B-131B could do the job adequately.

Work is now in progress to develop adequate materials specifications for a more complete range of flexible barriers to allow the Government, as well as industry, to use these materials in the most economical and efficient manner.

References

1. Mustin, G. S., MODERN PACKAGING, Oct., 1953.
2. Military Specification MIL-B-131B, Barrier, Water-Vaporproof, Flexible, July 16, 1952.
3. Lancaster, T. A., Paper on Barrier Material presented at the Joint Industry

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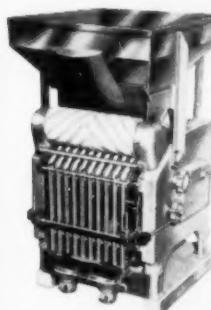
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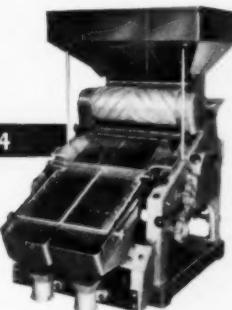
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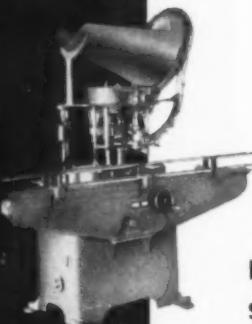
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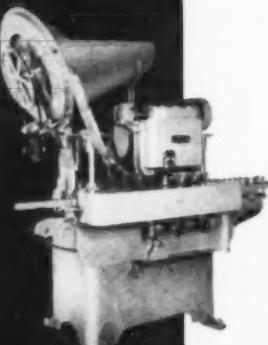
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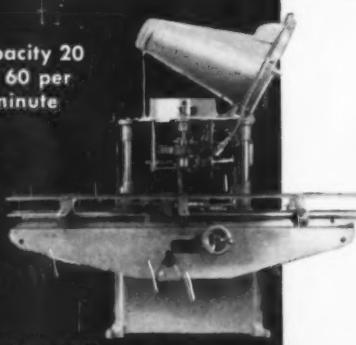
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Other models available.
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RESINA AUTOMATIC MACHINERY CO., INC.
BROOKLYN 31, N.Y.

Conference, Michigan State College, East Lansing, Michigan, April 9, 1953.

4. Gelber, P. A., and Bowen, J. H., "Flexing-Test Device," MODERN PACKAGING, Jan., 1952.

5. Gelber, P. A., Paper on Barrier Material presented at the Joint Industry Conference, Michigan State College, East Lansing, Michigan, April 9, 1953.

6. Air Force-Navy Aero Specification AN-B-20, Barrier; Flexible Sheet, Moisture Vapor, Oct. 2, 1945.

Potato packaging

Housewives prefer buying potatoes bagged in printed polyethylene, according to a survey conducted by the University of Maine. If the choice is between unwashed and washed potatoes both bagged in polyethylene, they overwhelmingly prefer washed "spuds." When potatoes are packed in printed polyethylene bags, over-all potato sales markedly increased.

These findings, just released by the University's Agricultural Experiment Station, are the result of studies made over a six-week period at supermarkets in Boston, Worcester and Bangor, Me. Sixty-three per cent of the housewives bought potatoes bagged in polyethylene, 26% bought those in mesh-window paper bags and only 11% bought potatoes in corrugated boxes. All varying types of packaging were given equal display treatment and no attempt was made in any way to influence the consumer. Sales turnover of polyethylene-bagged potatoes averaged much less than four days, it was found, thus eliminating any possibility of potatoes discoloring because of extended exposure to light.

Karl Hines, sales manager of the Nashua Corp. of Nashua, N. H., which produced the polyethylene bags from film supplied by Olin Industries, Inc., said, "The test proves that when potatoes of good quality are washed and then displayed in printed transparent polyethylene, they have obvious added eye appeal and are sought out by shoppers. Women have become used to fresh, attractively packaged and highly graded produce."

The survey, conducted in part with the aid of Maine potato tax funds, was designed to help Maine farmers and shippers of potatoes increase Maine's share of the potato market.

Further details of the test are available on request to the University of Maine Agricultural Experiment Station, Orono, Me.



Picking ideas out of the air

Flight 17 . . . American . . . lunchtime.

What's this? Salt, pepper, knife, fork, spoon—wrapped in cellophane! Sa-a-a-y . . . real smart. Clean, compact, eye-appealing, good-will builder.

Gives me an idea. Several ideas! My products could fly a lot higher that way. Better see a Sylvania Cellophane man soon.

(And remember, Mr. Executive, cellophane and *only* cellophane gives you protection plus sparkling eye appeal . . . at dollar-saving economy.) Sylvania Division,

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K. RUSSELL COLCORD (left) of United Aircraft is awarded Harold Jackson Trophy for his package, first-prize winner in Group 2, judged to be the export package offering best method of product protection against corrosion.

Industrial packaging

(This article continued from page 126)
Weller, Radio Corp. of America, Lancaster, Pa., packing electron power tube. Third—Wesley A. Rider, Federal Motor Truck Div., Federal Fawick Corp., Detroit, Mich., packing differential case with gear.

GROUP 6—EXPORT

First—Alan Cohen, Steiner Plastics Mfg. Co., Inc., Glen Cove, N.Y., packing U.S.A.F. navigators' observing dome.

GROUP 7—MATERIALS HANDLING

First—W. H. Richardson, The Driscoll Wire Co., Shelton, Conn., "pay-

EARL K. GUSTIN of Bendix Aviation with the Irving J. Stoller Award which he won for outstanding achievement in the development of interior packaging.



MODERN PACKAGING

out" drum for steel wire. Second—John F. Curtin, Ternstedt Div., General Motors Corp., Trenton, N.J., packing and handling glass control-ventilator assembly for front door. Third—Earl K. Gustin, Bendix Products Div., Bendix Aviation Corp., South Bend, Ind., packing and handling B47 front landing gear.

Concurrent with the meeting, Stanley Price of Western Electric Co., Chicago, and Earl B. Candell of the General Electric Co. Lamp Div., Cleveland, were elected chairman of the board and president, respectively, of SIPMHE. Other officers elected are: Executive vice president—J. W. McReynolds of Kraft Foods Co., Chicago. Vice presidents—L. S. Beale of the Wirebound Box Mfrs. Assn., Chicago; A. C. McGeth of American Box Board Co., Chicago, and E. P. Troeger of Douglas Aircraft Co., Inc., Los Angeles. Treasurer—M. A. Grogel of Ekco Products Co., Chicago. Secretary—John Mount of the Insurance Co. of North America, Philadelphia.

How soap sells hosiery

(This article continued from page 97) according to geographic destination, tied in bundles and put through a postage meter in a postoffice branch set up at the mill.

As Lever products are based on a weekly purchase cycle and as a dozen or more different products are involved, the average woman should have easy availability to sufficient box tops (or coupon inserts which are used in packages for certain products other than cartoned items) to keep her constantly supplied with nylons—Cannon nylons.

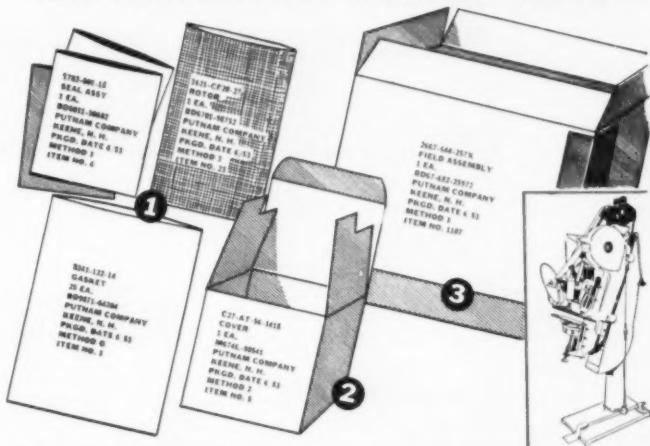
Judging by the impressive results, the present activity looks like a continued important association for some time to come. Lever is constantly adding more products to the "Pair-and-Spare" promotion. Although the company cannot estimate how long the offer may be continued, the tendency to multiple and repeat orders indicates it can go on indefinitely.

It will be interesting to see whether this premium practice achieves such permanence as to influence hosiery buying habits to the extent that premium promotions on other products have changed silver buying habits.

CREDIT: Cellophane envelopes, Lassiter Corp., Charlotte, N.C.

MARKE M SOLVED THIS MARKING PROBLEM

IDENTIFICATION MARKING FOR CONTRACT AND OVERSEAS PACKING



In contract and export packing of parts, assemblies, etc., certain JAN specifications call for three packaging stages: (1) enclosure in scrim-back or polyethylene lined heat sealing envelope, (2) intermediate packing in a folding box, (3) final packing in corrugated carton. Each of these three types of containers must be marked for instant and permanent identification. Many manufacturers, dissatisfied with conventional marking with crayon, stencil, labeling or other form of hand stamping, have not only found great savings in time and money, but also obtained more legible, longer lasting identification using a Markem Method. One Markem machine (with appropriate Markem type and Markem ink) prints desired information on all three containers. The vapor barrier of the envelope is not broken. Desired information is changed rapidly. By printing quantities of containers as and when needed, inventory problems are minimized. In this way, the Markem Method insures positive identification when the items reach their destination.



CAN MARKE M HELP YOU?

Identification printing for contract and overseas packaging is but an example of how Markem solves industry's marking problems. Markem has been providing industry with production techniques and equipment to identify, decorate or designate its products, parts and packages since 1911. Markem also provides technically trained men who are available in your area to assure continued satisfaction with Markem methods and equipment.

When you have a marking problem, tell us about it and send a sample of the item to be marked. Perhaps a complete Markem Method has already been developed to solve your problem. If not, Markem will work out a practical solution.

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SHAPED to fit the contour of your product, Merit Displays new Blister-Pak places your merchandise in full view behind a transparent vacuum formed window. Blister-Pak protects while it merchandises for self service. Quickly assembled with no stapling, no wiring, no tying to the card. Available with or without pressure-sensitive adhesive. Designed to fit snugly into a complete self-contained vending unit.

Call on Merit's know-how for your product packaging or display — complete facilities under one roof for a full merchandising job from design through production.

*Call, write, wire for information,
samples.*



2 "Snap-Cut" pruning shears nested in a Blister-Pak vending unit. Die cut lip holds transparent window and merchandise securely in place while permitting package to be opened for inspection or for product replacement.



"Heather" liquid rouge completely sealed into Blister-Pak and anchored firmly to card for syndicate store merchandising. Assembled instantaneously through built-in pressure sensitive adhesion.

MERIT Displays

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GRAMERCY 5-2800

New D of C agency

Establishment of a new agency to succeed the former National Production Authority, which retains the Containers and Packaging Division of NPA, has been announced by the Department of Commerce.

Titled the Business and Defense Services Administration, the new agency will also consolidate five current departmental offices, establish 25 industry divisions staffed by business experts from Government and private industry, and provide a focal point for effective cooperation between Government and business.

The Containers and Packaging Division, headed as under NPA by Charles A. Lewis as director, is presently staffed with 14 per annum employees; one full-time consultant serving without compensation, selected on a six-month rotating basis from the container and packaging field, and a number of industry consultants available on call (also without compensation) as problems arise affecting a specific area of the container field. They are a nucleus of experts immediately available to this Division in the event of a national emergency.

Offices transferred to BDSA are: Office of Technical Services, Office of Distribution, Field Service, staff functions of the Industry Evaluation Board and the Office of Industry and Commerce, including the Trade Association, Commodities Standards and Area Development Divisions.

The new agency is described by Secretary of Commerce Weeks as "a listening post and sounding board for bringing business information and opinion on vital matters relating to Government and industry, including reports on business conditions, to the direct attention of the Commerce Department for appropriate action. One phase of this is greater cooperation between the Department and industry groups and trade associations."

H. B. McCoy, formerly Acting Administrator of NPA, is Acting Administrator of the new BDSA, and his three assistants are Samuel N. Comly of the Russell, Burdsall & Ward Bolt & Nut Co.; Leonard E. Pasek of the Kimberly Clark Corp.; and Samuel A. Crabtree of Republic Steel.

There will be three staff offices—Technical Services, Small Business, and Distribution—as well as 25 industry divisions.

Western show

The San Francisco Civic Auditorium will be the site of the Fifth Western Packaging and Materials Handling Exposition scheduled for Aug. 17-19, according to Clapp & Poliak, Inc., exposition management firm. This change (previously the exposition had been scheduled for Los Angeles) came about as a result of a poll of all exhibitors in the four previous expositions, a majority of whom preferred the San Francisco location. Last year the exposition was held in Los Angeles, concurrently with a materials-handling conference.

Milk-pitcher carton

(This article continued from page 99)
structured flow of the product, the milk can be emptied from the container without juggling or shaking it around.

With the spout open, milk may be easily drunk directly from the carton, as from a sanitary drinking cup, or a straw may be inserted in the top. For reclosure, the spout is simply pushed back into its original position, causing the scores to reverse themselves and to bring the top of the package back into original position with the pouring lip covered by the top flap.

Other advantages of the modified pour-spout container remain similar to those of the carton which it is displacing—ease of disposal, elimination of returns, light weight and ease of carrying, freedom from breakage and space-saving features which permit a larger supply of milk on hand in the home refrigerator.

To acquaint school children with the method of opening the new-type container, thereby encouraging its usage by dairies which sell milk directly to educational institutions, the developer of this patented-style package has made available to dairies a small "Movin' Picture" booklet. The booklet is stapled at the left edge, so that the pages may be flipped rapidly with the fingers to show the sequence of operations in a series of line drawings. These miniature educational booklets, measuring approximately 1½ by 3 in. in size, are distributed to the children directly by the schools.

CREDITS: Disposable waxed-paper milk containers and equipment for forming, filling and closing packages, Pure-Pak Div., Ex-Cell-O Corp., 1200 Oakman Blvd., Detroit, Mich.

Important Ingredient for CANDY SALES

Just as important as the select ingredients that go into the making of candy bars is the wrapper. It must be attractive, economical, and keep the candy fresh and tasty.

Rhinelander Glassine performs this job precisely. The density of this quality packaging material keeps out unwanted air and dampness and furnishes the super-greaseproof quality that prevents stains. Waxing, laminating, or lacquer coating multiplies its ability to retain product freshness and pleasing aromas. Moreover, its glossy beauty and excellent printing surface are important aids in selling.

Rhinelander glassine and greaseproof are also used in boxed or bagged candy and in other candy packaging applications where beauty, as well as greaseproof protection, is necessary.



Rhinelander papers come in a variety of standard grades, or they can be tailor-made to fit your needs. Write for samples, stating your application.

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Glassine and Greaseproof papers, either plain, waxed, wax laminated, or coated, are used as inner liners and outer product wraps • product bags and envelopes • insert labels • for laminating to other packaging materials like foil, box board and films • packaging accessories, and scores of other applications in the food packaging industry where greaseproof qualities are essential.

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MACHINERY FOR SALE

FOR SALE: 2—Brightwood Box Machines, with collappers; Std. Knapp Self-Adjusting Gluer Sealer & Comp. Unit; Pneumatic Scale Packaging Line, late type; Capem SIF Capper; 7—Vacuum & Gravity Fillers, S/S fitted; Stokes & Colton Auto. Tube Fillers & Closers. Only a partial list. Send us your inquiries. Consolidated Products Co., Inc., 16-20 Park Row, N. Y. 38. Barclay 7-0600.

PONY LABELRITES: Factory rebuilt, one year "new machine" guarantee. New Jersey Machine Corporation, 16th Street & Willow Avenue, Hoboken, New Jersey.

FOR SALE
2—Scandia cellophane wrapping machines;
4—Fred Hesser razor blade wrapping machines;
1—Redington Model 23H2 razor blade cartoning machine; 3—Bliss playing card collating & die cutting presses; all very reasonable.

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Watkins 9-3168

AYERS LABEL DIE CUTTING MACHINE: Cuts from cigar band size to 3" in diameter. Speed: 450,000 to 1,000,000 per day. Practically new and includes all extra equipment. Price: \$1200. Box 664, Modern Packaging.

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Union Standard Equipment Company
318-322 Lafayette Street
New York 12, N.Y.

FOR SALE: 1 Roto Bag Poly Bag Machine—POZ—Perfect Cond. 1 Roto Bag Cello Bag Machine. Perfect Cond. 1 Simplex Cello Bag Machine with electric eye. 1 Anderson Cello Bag Machine. 2 Simplex Pliofilm Bag Machines. Sundry items. Box 673, Modern Packaging.

FOR SALE: 1 Simplex Model 7-24 High-speed Automatic Bag Machine; 1 Doughboy Model PHS Rotary Heat Sealer; 1 Doughboy Model 2H AT Rotary Heat Sealer with 24" Preheaters; 1 Universal 5" Cloth Cutter; 1 Surface Button Type Pyrometer 0° to 800° F. with 2 ft. leads. All equipment in good operating order. Some of it practically new. Box 676, Modern Packaging.

FOR SALE: Redington Type 47B2 Tablet Wrapping and Banding Machine including coding mechanism for $\frac{1}{4}$ " diameter tablet. Has had less than 30 days actual production use. Located in plant in Chicago area. Immediate disposition desired. Box 678, Modern Packaging.

EQUIPMENT WANTED

WANTED: Pneumatic Scale Packaging Line, Capper, Labeler, Cellophane Wrapper. P. O. Box 1351, Church St. Station, New York 8, N.Y.

WANTED: No. 4 Simplex cello bagmaker and late model Roto cello bagmaker. Preferably with electric eyes. Quote best price and specifications and serial number. Box 659, Modern Packaging.

SALESMAN WANTED: Established steel and metal importer is seeking salesman visiting consumers of aluminum foil, embossed, printed and plain, with various types of paper backing. Attractive commission. Advise lines carried and territories covered. David L. Wilkoff Co., Inc., 150 Broadway, New York 38, N.Y.

HELP WANTED

SALES REPRESENTATION: Due to recent expansion program, established converter of cellophane and polyethylene has several openings for experienced volume producers only to sell complete line of printed rolls, sheets, bags and envelopes including six color printing and hosiery envelopes. Excellent opportunities for the right man. All replies confidential. Bagphane Corp., 65 So. 11 St., Brooklyn, N.Y. Ev. 4-6400.

REPRESENTATIVES OR MFRS. AGENTS: To handle volume packaging line consisting of plastic bags, pouches, cases, containers, and specialty items for all types of industry. Samples, sales literature, and leads furnished. Commission basis. May handle non-conflicting allied lines. Send complete resume of experience, other lines carried, and territory covered. Box 656, Modern Packaging.

SALESMEN: Leading converter and printer of cellophane, Pliofilm, polyethylene, acetate, glassine and foil in rolls, sheets and bags. Seeking experienced representatives. We now have established well paying territories open in the east and middle west. Write us in confidence giving complete information. Cellu-Craft Products Corporation, Flushing, New York.

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MANUFACTURER'S REPRESENTATIVE: Wanted by a long established manufacturer of collapsible tubes & aluminum containers in the following areas & vicinity, New England, Wilmington, Pittsburgh. Commission basis. No objection to representing non-competitive line. State qualifications & lines now selling. Replies will be held in strict confidence. Box 797, 1484 Bway, N.Y.

CHEMIST—B.S.: Opportunity in packaging division of food company laboratories located N.Y.C. One year's experience in packaging desirable. Salary open. State age, experience, education and salary expected. Box 660, Modern Packaging.

SALESMEN WANTED: Long-established manufacturer of plastics with AAA rating, now in flexible bottle field, has openings for several top-rank salesmen. Splendid future and unlimited opportunity for energetic experienced men. Only those with following in cosmetic and drug fields will be considered. Write giving full details, confidential. Box 661, Modern Packaging.

OPPORTUNITY: Polyethylene and cellophane bag line. West Coast territories open. Men with non-conflicting lines welcome. If you have a following in the packaging field here is an opportunity to substantially increase your present earnings. Straight commission basis; representing a quality house. This is a real opportunity for aggressive, independent salesmen. Tell us about yourself. Box 663, Modern Packaging.

MACHINIST: For development work on cellophane & polyethylene bag machines and aniline printing presses. Excellent opprtty; salary open. Box 80, Realservice, 110 West 34th St., N.Y.C.

ARTISTS: To do creative designing for a nationally-known manufacturer of protective packages for food. Men 25 to 40 years of age desired who have had some previous experience in the commercial art field. Salary will be commensurate with experience and versatility of productive and creative ability. Submit original samples with application. Write: Placement Department, Marathon Corporation, Menasha, Wisconsin.

MANUFACTURERS REPRESENTATIVES: Required by small growing concern producing polyethylene bags and drum liners. Established representatives only. Particularly needed in Michigan, Illinois, and Wisconsin. Other territories open. Prefer men now calling on food and chemical industries. Please reply giving present lines, territory covered, etc. Top commission. Box 671, Modern Packaging.

ARTIST: For package design studio. Experienced on cellophane comps and BWs for cellophane printing. Must do clean, sharp, accurate work, strong on lettering. Salary \$4600 to start. Box 670, Modern Packaging.

WANTED: Experienced executive salesman to supervise and handle sales and sales personnel of a plastic container manufacturer. One of the largest in the field. Write qualifications, availability, salary requirements. Box 674, Modern Packaging.

MANUFACTURERS REPRESENTATIVES: Extruder of quality Polyethylene film seeks Manufacturers Representatives calling on Converters and Bag manufacturers. Many open territories outside Metropolitan New York. Commission Basis. Very large volume possible in this growing market. Box 677, Modern Packaging.

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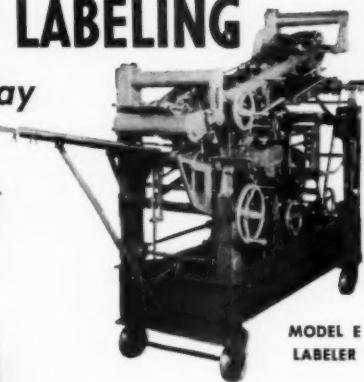
(Continued on page 212)

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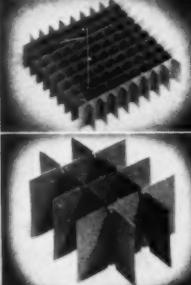


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(Continued from page 210)

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PLASTIC SCRAP: Cellulose Acetate and rigid vinyl sheet scrap in any quantity. Also Polystyrene, Acetate, Butylate molded rejects, scraps and excess molding powder inventories. Box 655, Modern Packaging.

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CONVERTER OR BOX PLANT: Cylinder machine mill in Middle West is interested in making arrangement with converter or box plant who wants a permanent mill connection on box board, coated or uncoated, or other cylinder machine products. Box 657, Modern Packaging.

CONTAINER CLOSURE: Automatically sealing and opening, suitable for any kind of metallic or plastic container, U.S. patent 3,816,241 pending—for sale. Drawings and specifications will be sent by patentholder. Jos. Vnuk, 14 Bourassa, St. Joseph de Sorel, P.Q. Canada.

FOR IMMEDIATE SALE: Subject to Prior Sale:—50,000—20/410—unusually heavy—white Urea reverse taper caps, cork and tinfoil lined. Reason for selling:—Caps do not come up to high quality appearance standards established by a leading cosmetic firm. All other specifications perfect. 150,000—22/410 polished brass caps over aluminum inner shells, and approximately 100,000—24/410 polished brass caps over aluminum shells, both lined with cork and aluminum foil. We will accept offer for part or all at fraction of original value. Call or write for samples. J. Rabinowitz & Sons Inc., 2 Hanson Place, Brooklyn 17, N.Y. Tel.: Sterling 3-0300.

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WE BUY JOB LOTS:—Overruns, seconds of flint papers, foils, chromekote, kraft. Also plaid, leatherette, or any papers suitable for knitting cans. Please send samples and prices to: Edward Simon, Universal Tube & Container Co., 144 Moody Street, Waltham 54, Mass.

MFG. FACILITIES REQUIRED: Fast growing packaging mfr., mfr. wishes to affiliate with concern capable of taking over complete manufacturing and development of new models. Non-seasonal. Moderate investment required. Reply should mention facilities available. Box 668, Modern Packaging.

MATERIALS FOR SALE: 3,500 lbs. baby pink cellulose acetate sheeting, .020. Original containers 35¢ per pound. Claude P. Bamberger, Inc., 152 Centre St., Brooklyn 31, N.Y. Tel.: Main 5-5533. Not connected with any other firm of similar name.

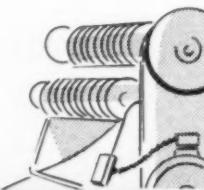
PLASTIC SCRAP AND REJECTS IN ANY FORM: Cellulose Acetate, Butylate, Polystyrene, Vinyl, Polyethylene, etc. We pay top prices for clear, colored and printed scrap in any quantity. Box 654, Modern Packaging.

ART AND PACKAGE DESIGN STUDIO: Highly creative, experienced and production-wise staff with centrally located N.Y. offices and aggressive sales force. Seeks connection with packaging firm wishing us to act as their Art and Design department in the N.Y. area. Write to: Kurmit Associates, 4 West 37th St., New York 18, N.Y.

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For further information address Classified Advertising Department,
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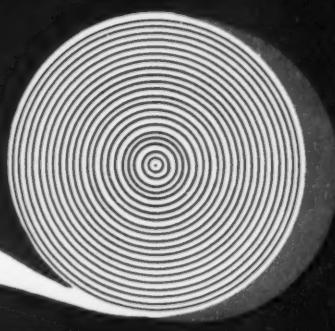
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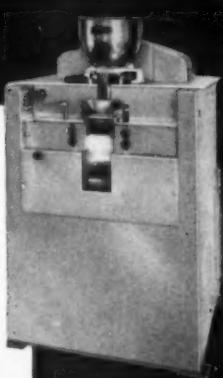
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Careful and rigid inspection of liner and cap is one of the many steps Owens-Illinois takes to produce better, fully controlled quality.

when it's so easy to have our technicians help you select one that's exactly right for your product

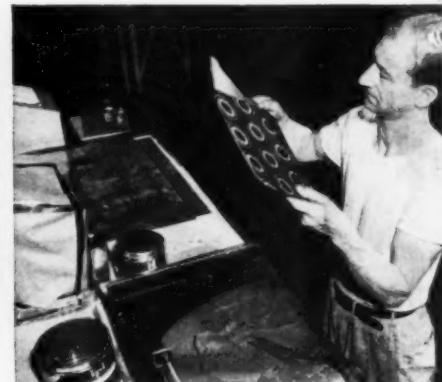
CLOSURES PLAY AN IMPORTANT ROLE in the sale and resale of your product. They must be efficient . . . they must be convenient to use . . . they must be economical. So you must select yours with care.



Finding new and better liner materials for your product calls for evaluation under rigidly controlled storage conditions such as are provided by this humidity control cabinet.



Another control test with the precision penetrometer measures the hardness of waxes and other liner materials for closures.



Packaging as a sales tool is more important than ever before. Cap designs can actually help a product's sales. Here, careful matching of inks assures you bright, colorful closure designs to attract impulse sales.



BEFORE:

On the left, something's needed to give this package the extra sell that makes the difference between many a "pick-up" and a "pass-by" in today's self-service selling

AFTER:

On the right, this salespackage has it—a smart, colorful eye-catching closure-label design. It's easy to see why it helps draw impulse sales. The product will now flag attention at knee-level as well as eye-level position.



CLOSURE DIVISION • OWENS-ILLINOIS GLASS COMPANY

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